

Doc. 2542

No. 1

Five Year Program of Manchoukuo

(Part 3)

E. H. 446

Table showing General View of Five-Year Plan
for Industrial Development in Manchukuo.

(May 1938, Manchukuo Government)

1. Mining and other Industries

Resources	Unit	Initial Production Goal after 5 years	Producing Capacity at the end of 1938 or the end of year	Actual Production on the 1st year	Production Goal in 5 years after improvement of Industrial Plan	Remarks
Iron and Steel						Progress of production of iron and steel
Iron (including bloom)	1000-kilo-ton	2,530	850	760	(Eg) (4,850)	(1) Kokawa Steel Works
Steel Ingot	"	2,000	580	450	(Eg) 1,522 (for "Top") (3,550)	Four additional 700-ton steel-melting furnaces are under installation and installation of four additional 150-ton open-hearth furnaces is now under project while ten new non-furnaces are being installed. Extension of the equipment for rolled steel amounting to 400,000 tons is also under way.
Roller steel	"	1,500	400	256	(Eg) (1,700)	
Special steel	"	—	—	06	1,400	
Iron Ore	"	Rich 1,590 Poor 6,150	640 2,540	709 1,768	2,990 13,000	(2) Panchikou Coal and Iron Co.
Coal	"	27,160	13,558	14,648	34,910 (for "Top") (6,000)	Preparation are being made for installing two additional 600-ton steel smelting furnaces.
Manchuria Coal Co.	"	15,000	2,510	2,700	18,050	
South Manchuria Railroad Co.	"	10,660	10,348	10,570	10,360	
Panchikou Coal and Iron	"	1,550	700	768	2,700	
Others	"	—	—	570	3,800	
Liquid Fuel Coal Dignostion (Plants)	"	800	—	—	1,770	

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Resources	Unit	Production Goal after 5 years	Planned Production at the end of 5 years	Actual Production on the 1st year	Production Goal in 5 years after expansion of existing plant	Remarks
Fushun	1000-kilo-ton	250	—	—	350	
Chinchow	"	300	—	—	700	Dealing with Fushun Coal
Shipping hai	"	100	—	—	160	
Shim	"	—	—	—	0	
Chien-tao	"	150	—	—	300	
Chilin	"	—	—	—	200	
Iron	"	—	—	—	60	Blat furnace gas and coke furnace gas are utilized
Cinchon (Manufactured goods)	"	—	—	—	1670	
White oil	"	650	—	—	250	
Heavy oil	"	100	—	—	77	
Others	"	—	—	—	650	
Shale oil (plants)	"	800	145	—	500	
Fushun	"	500	145	—	—	
San-shin	"	300	—	—	—	

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Resources	Unit	Initial		Plan		Actual Production on the 1st year	Production Goal in 5 years after implementation of Revised Plan	Remarks
		Production Goal after 5 years	Producing Capacity at the end of 1936	Production Goal on the 2nd year				
Lignite	1000 Kilo-ton	—	—	—	—	Investigation is being made on the spot	150	
(Manufactured goods)								
Volatile oil	1000 Kilo-ton	176	24	24	14		90	
Heavy oil	1000 Kilo-ton	331	66	66	75		500	
Alcohol	Kilo-ton	56,690	(Capacity for producing 15,080)	15,080	4,032		56,690	
Aluminium	"	20,000	—	—	—		30,000	Extension of Fushun Plant of Manchuria Light Metal Co. (now producing 4,000 Kilo-ton which is expected to 5,000 Kilo-ton in the near future) is nearly complete and the beginning of its operation is expected soon.
Magnesium	"	500	—	—	—		3,000	Now under study.
Lead	"	12,400	2,200	2,200	1,220		29,000	Development of Jingshan is now under consideration besides Yangchiashuoguo and Jingshan, opening up of which has already been planned.
Copper and Zinc	"	6,600	1,900	1,900	1,643		50,000	Development of Jingshan and other place (such as Jingshan) is now under consideration in addition to Yangchiashuoguo, development of which is already under way.

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Resources	Unit	Initial Plan		Actual Production on the 1st Year	Production Goal in 5 years after improvement of Revised Plan	Remarks
		Production Goal after 5 years	Producing Capacity at the end of 1938			
Salt	Kil-ton	973588	340,000	33,648	910,250 (for Jap) (1,450) After salt-pile become ripe 1,402,000 (for Jap) (about 1,000)	
Soda Ash	"	72,000	12,000	12,000	72,000	Arrangement for production of rayon plants of four companies in Eastern Manchuria District have almost completed and they are expected to operate in the near future.
Chemical Fertilizer	"	—	—	202,930	453,990	
Pulp	1000 kilo-ton	120	70	10	400	
Wood Pulp	"	120	70	10	300	
Reed Pulp	"	—	—	—	70	
Bean-Stem Pulp	"	—	—	—	30	
Gold	1000 Yen	Total 212,000	10,024 (2,209 Kilogram)	12,108 (3,289 Kilogram)	Total 30,412 (89,649 Kilogram) 5,000	The revised plan includes the increased production of mountain gold.
Machine Tools	1000 Yen	—	—	—	20,000,000 Yen 50,000 for the present 30,000	30,000 marks is for the present aimed at in making equipment for the production as the first stage.
Automobile	"	4,000	—	—	—	On a first step, plan for separation and extension of Manchuria Aircraft Manufacturing Works is under way.
Airplane	KW	340	—	—	5,000	

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Resources	Unit	Initial		Plan		Actual Production on the 1st year	Production Goal in 5 years after improvement of Revised Plan	Remarks
		Production Goal after 5 years	Production Goal at the end of 17.5 years	Producing Capacity at the end of 17.5 years	Production Goal on the 2nd year			
Electric Power	KW	1,400,000		458,600	536,900	550,100	2,570,500	Hydraulic electricity
Coal-fired electricity	"	814,600		458,600	536,900	554,100	1,330,550	Gulu River
Hydraulic electricity	"	590,000					1,240,000	(Capacity 630,000 KW)
								Shungari River
								(Capacity 180,000 KW)
								Lake
								(Capacity 80,000 KW)
Arms		About five times of the present capacity						In respect to Gulu River the initial blocking work has been done on about 60% and it is expected to be completed at the end of 1940. As to Shungari River and Lake Chingpo investigations etc. are satisfactorily progressing.
Rolling-stock	carriage							Details are now being studied separately.
Locomotive	"	1,664 (85)						Details are now being studied separately.
Carriage and good wagon	"	16,490 (2,150)						Figures bracketed show capacity of producing new rolling-stock.
Asbestos		5,000		150	150	100	5,000	
Cattle meat processing		50						

Remarks

1. (Fig.) indicates the scale of equipment for the production aimed at.

2. (for Jap.) indicates the amounts of products scheduled to be supplied to Japan.

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2 Agriculture and Stock-farming
(a) Agriculture

Resources	Initial Plan			C A	C B	Production scheduled to the official in the 2nd year	Increase or decrease of production as compared with the initial plan	Remarks
	Expected production after 5 years	Production capacity in 1936(A)	Expected production in the 1st year (B)					
Rice	577.9	337.2	338.0	114	114	396.2	(+) 290	Self-supporting of Manchukuo is considered.
Barley	417.6	257.9	241.2	119	127	—	—	
Wheat	100.1	79.3	96.7	98	81	—	—	
Wheat	2,024.1	966.0	1,110.0	112	97	1,344.8	(+) 49.8	Increased production is aimed at for self-supporting.
Barley	262.0	184.6	192.0	88	84	174.9	(-) 24.1	Decreased in production per hectare.
Oat	89.0	47.8	41.0	76	89	53.0	(+) 5.0	Demand for military purposes is considered.
Sorghum	152.0	1.9	9.0	101	21	7.6	(-) 20.2	Plan is curtailed as acquisition of seed is difficult.
Hemp	23.1	0.72	2.0	79	28	7.7	(-) 0.3	Seed is insufficient.
Flax	23.1	1.6	3.4	143	70	5.8	0	
Cotton and plant	40.0	30.0	31.0	103	99	37.0	(+) 4.0	Demand for military purposes is considered.
Raw cotton	45.5	15.0	17.3	130	101	23.0	(+) 1.3	Progressing as planned on the whole.
Tobacco	9.9	2.4	2.9	128	106	5.6	(+) 1.9	Increased production is considered for the prevention of importation.
Beet	300.0	69.0	144.0	196	94	210.6	(+) 42.2	— ditto —
Soya bean	4,730.0	4,210.3	4,130.0	101	102	4,500.0	(+) 300.0	Increased production is considered for the acceleration of exportation.
Maize	4,600.0	4,241.8	4,301.9	101	99	4,480.0	(+) 93.0	Increased production is considered to ensure the supply to Japan and China.
Millet	3,590.0	3,439.4	3,198.4	102	110	3,489.0	(+) 227.8	Self-sufficiency of the nation is considered.
Corn	2,200.0	2,124.7	2,100.0	100	101	2,270.0	(+) 190.0	Increased production is considered to ensure the supply to Japan.

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(b) Stock farming

Resources	Initial Plan			Actual production in the 1st year (C)	C/A	C/B	Revised draft plan of stock farming		Remarks
	Expected production after 5 years (A)	Productivity Capacity 1936 (A)	Expected production in the 1st year (B)				Expected production after 5 years	Expected production in the 1st year	
Sheep:									
Pure breed	35,000	3,000	8,000	10,524	381	132	39,171	12,141	Increase is necessary for the increasing of improved stock.
Mixed breed of improved stock	310,000	9,000	24,000	9,938	110	41	98,036	19,300	Adjustment of excessive estimation of pairing rate per ram.
Ordinary breed	3,857,000	3,000,000	3,080,000	3,061,000	102	99	4,254,575	3,272,511	Restriction of slaughter and exportation is considered.
Total	4,202,000	3,012,000	3,112,000	3,081,462	102	99	4,391,782	3,303,953	
Horse									
Improved breed	64,200	529	3,433	1,987	376	58	38,651	5,101	Adjustment of excessive estimation of pairing rate per stallion.
Ordinary breed	2,238,200	1,898,900	1,927,000	1,927,000	101	100	2,238,200	2,022,000	
Total	2,302,400	1,900,000	1,929,300	1,928,987	102	100	2,276,851	2,024,101	
Wool									
Pure breed	164,000	16,000	38,000	25,611	160	67	195,855	60,710	Due to the fact that wool cutting was done before the importation of the adult sheep.
Mixed breed of improved stock	723,000	23,000	57,000	29,966	130	53	207,010	43,025	Due to the delay in the improvement of sheep.
Ordinary breed	3,857,000	3,000,000	3,080,000	3,061,000	102	99	4,254,575	3,272,511	
Total	4,744,000	3,034,000	3,175,000	3,116,577	103	98	4,657,440	3,376,246	
Sheep, Hides									
Adult sheep Hides				1,305,383			1,585,294	1,181,209	
Small Hides				319,200			466,504	343,614	
Total	1,736,000	1,460,000	1,436,000	1,354,583	294	94	2,051,353	1,524,819	
Deer	2,944,000	1,979,000	2,083,000	2,062,000	104	99	2,503,000	2,161,000	Due to decrease in importation.

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Resources	Initial Plan		Actual production in the first year (C)	$\frac{C}{A}$	$\frac{C}{B}$	Revised draft plan of stock-farming Bureau		Remarks
	Expected production after 5 years	Production capacity in 1936 (A)				Expected production after 5 years	Expected production in the 2nd year	
Ox-hide	416,000	375,000	320,000	85	84	381,000	334,000	Decreased due to efforts made to increase the oxen used for domestic purposes.
Py Mixed breed of improved stock	1,933,000	154,000	304,000	197	100	1,933,000	554,000	
Ordinary breed	3,327,000	484,600	482,100	99	102	3,840,000	4,701,000	
Total Meat	5,260,000	5,000,000	5,125,000	103	101	5,773,000	5,255,000	
Mutton	11,000	9,900	10,181	103	101	16,046	11,911	
Beef	29,244	25,030	24,000	96	98	29,244	25,000	Slaughter has decreased due to the efforts made to increase the oxen used for domestic purposes.
Pork	152,000	105,600	114,200	108	100	152,000	123,200	
Total	192,244	140,530	148,381	106	99	197,290	160,111	

Note Unit Live-stock ----- Head
 Hides ----- Skint
 Wool ----- Kilogram
 Meat ----- Kilo-Ton

3. Transportation and Communication

Unit	Initial		Plan Situation at the end of 1936	Plan Goal in the 1st year	Actual production in the 1st year	Remarks
	Goal after 5 years	Situation at the end of 1936				
Railroad						Works at present continued cover 902 kilo-
State-owned railroad	11,948	7,686	750	750	750	metres made up of 292 Kilometres remainder
Private railroad	10,714	7,447	735	735	735	of the 3rd program, 106 Kilometres between
Road	1,224	239	15	5	5	Shiohoku and Kokubukō, 385 Kilometres of the
National road	Construction 13,263 Improvement 8,851	8,992	Construction 1,363 Improvement 5,763	Construction 2,168 Improvement 3,174		4th program and 119 Kilometres belonging to
		Distinction between national department road and industrial road is not clear.				the 5th program. Business is expected to be
						opened within this as to 106 Kilometres.
						Of 1500 Kilometres industrial railroad, works
						are being partly launched as to 804 kilometres
						Tunggingtao Industrial Railroad and are
						expected to be completed in 1942. As to the
						private railroad about 170 Kilometres are
						planned in 1938.
Construction of national department road	3,508	—	553	696		
Improvement of national department road	2,780	—	2,049	1,230		
Construction of industrial road	9,755	—	810	1,472		
Improvement of industrial road	6,071	—	2,049	1,230		
Motor-road	64,463 at the end of 1941	13,949 at the end of 1936	No plan in 1937	the year		As there had been no fixed plan, 4-year plan
State-owned motor-road	51,643	7,249	—	—		applicable from this year has now been prepared.
Private motor-road	13,000	6,700	—	—		Number of automobiles at the end of 1937
						State motor-service 630
						Private motor-service 785
						Estimated number of automobiles at the end of
						1941
						State motor-service 4,386
						Private motor-service 1,505

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	Unit	Initial Plan		Actual production in the 1st year	Remarks
		Goal after 5 years	Situation at the end of 1936		
Harbor Rashin	Ton		Capacity under the 1st plan 3,000,000 Tons Capacity after the plan was carried out completely. 9,000,000 Tons		The 1st plan was completely carried out by the end of December 1937.
Hulutas	"		Capacity after the plan was carried out completely 4,000,000 Tons		Works for the 1st year plan was completely carried out and works for the 2nd year is progressing smoothly.
Communication			Fund required for the plan 50,000,000 Yen Fund required in the 1st year 10,000,000 Yen		Plan for 1937 has been mostly carried out according to arrangements made for each year under the general plan, and remaining work is being carried on smoothly.

A separate plan for aviation, harbor, marine traffic and river traffic is being considered in line with the progress of enforcement of the plan for mining and other industries, agriculture, stock-farming and immigration.

4. Immigration

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(1) Japanese Immigrants

Year	Initial Plan		Actual Record		Revised Plan		Note
	Grouped immigrants	Free immigrants	Grouped immigrants	Free immigrants	Grouped immigrants	Free immigrants	
1st Year (1937)	5,000 households	1,000 households	5,000 households	948 households	5,000 households	948 households	From 1 April, 1937 to 1 March, 1938
2nd Year	10,000	5,000	—	—	5,000	1,000	— ditto —
3rd Year	15,000	6,000	—	—	15,000	6,000	— ditto —
4th Year	20,000	8,000	—	—	20,000	10,000	— ditto —
5th Year	20,000	8,000	—	—	25,000	12,000	— ditto —
Total	70,000	30,000	—	—	70,000	29,948	— ditto —

(2) Korean Immigrants

Year	Initial Plan		Actual Record		Note	
	Grouped immigrants	Free immigrants	Grouped immigrants	Free immigrants	Concrete arrangements will be made for immigration after the 3rd year, admitting immigrants within the limit of 10,000 households in each year according to the existing circumstances of the year.	
1st Year (1937)	6,000	4,000	3,062	Not clear		
2nd Year	4,000	3,000	—	—		

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5. Capital

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Classification by occupation	Total amount of capital required for initial 5 Year Plan		Capital plan for 1st year		Amount of funds actually raised	Capital required after 2nd year under revised plan (in ₹ 1,000)
	Decided by military authorities, Jan., 1935	Revised total amount of capital required	Capital required	Supply Plan Funds held by company	Estimated amount of funds to be raised	
Mining and other Industries	1,391,071	1,600,802	183,093	36,742	146,351	115,948 (63)
Iron and steel	248,485	360,500	23,290	16,290	7,000	7,933 (100)
Coal	150,000	183,730	45,948	4,503	41,445	30,410 (73)
Coal liquefaction	339,000	320,000	27,500	—	27,500	21,000 (49)
Shale oil	81,900	83,777	9,500	—	9,500	9,200 (96)
Alcohol	15,470	15,000	600	—	600	15,000
Aluminium	38,000	71,500	10,000	—	10,000	78,000
Magnesium	560	3,000	—	—	—	9,000
Lead, zinc and copper	4,800	5,850	1,400	—	1,400	29,300
Salt	11,250	23,218	1,344	1,113	231	1,350 (100)
Soda ash	4,000	1,500	—	—	—	1,500
Chemical fertilizers	—	—	—	—	—	—
Pulp	15,000	20,681	—	—	—	194,000
Gold mining	51,325	85,101	13,002	2,629	10,373	4,825 (46)
Machine tools	—	—	—	—	—	15,000
Automobile	20,000	20,000	4,000	—	4,000	180,000
Airplane	30,000	30,000	6,000	—	6,000	500,000
Electric power	245,958	287,084	40,509	12,207	28,302	33,150 (100)
Asbestos	500	500	—	—	—	2,500
Processed cattle meat	7,000	9,024	—	—	—	9,000
Rolling-stock	27,813	—	—	—	—	28,000
Arms and Tank	100,000	100,000	—	—	—	100,000

Classification by occupation	Total amount of capital required for initial 5 Year Plan		Capital plan for 1st year			Amount of funds actually raised	Capital required after 2nd year under revised plan (in ₹ 1,000)
			Capital required	Supply Plan Funds held by company	Funds to be raised		
Transportation and communication	770,677	797,984	170,591	—	170,591	153,685	644,000
Railroad	621,877	631,377	135,219	—	135,219	(88) 139,133	—
Harbor	36,800	47,057	10,820	—	10,820	(95)	—
Road	62,000	69,550	14,552	—	14,552	14,552	—
Communication	50,000	50,000	10,000	—	13,750	(100)	—
Agriculture and stock-farming	142,927	147,106	36,754	—	38,057	13,852	—
Agriculture	135,427	135,427	35,557	28	36,723	(36) 11,352	135,000
Stock-farming	7,500	11,679	1,197	—	35,557	(31) 2,500	—
Immigration	274,000	331,273	38,032	28	1,165	(100)	—
Immigrants	274,000	331,273	38,032	9,178	28,854	22,000	303,000
Grand total	2,578,675	2,877,163	428,466	9,178	28,854	22,000	
				45,948	382,518	305,485	
					418,314	(73)	

Figure bracketed under the item of "Amount of funds actually raised" show the percentage of that amount to the estimated amount of funds to be raised.

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Appendix Funds classified by sources and Funds classified by means of raising.

Name of Department	Funds classified by sources				Funds classified by means of raising			
	Japanese Government	Manchoukuo Government	South Manchuria Railroad Co.	Others	Stocks	Debenture or Loan	Raised by the Manchoukuo state enterprises	Raised by the South Manchuria Railroad enterprise
Mining and other industries	—	51,147	59,093	65,676	75,225	7,223	3,150	30,350
Transportation and communication	—	33,399	53,350	29,199	—	—	—	—
Agriculture and Stock-farming	—	14,552	146,039	13,750	—	—	14,552	139,133
Immigration	—	1,375	—	36,682	2,500	11,352	—	—
Total	2,000	1,375	—	12,477	18,000	4,000	—	—

Note 1. With regard to figures given under the item of "Funds classified by sources", the upper ones show the estimated amounts of funds to be raised while the lower ones show the amounts of funds actually raised.

2. The funds "raised by the Manchoukuo State enterprises" under the item of "Funds classified by means of raising" mean those provided in the budgets for state enterprises such as hydraulic electricity on the Sungari River and road construction, while the funds raised by the South Manchuria Railroad enterprises mean those provided in the South Manchuria Railroad budget for coal liquefaction, shale oil and coal-mining at Fushun, railroads and harbors.

IMPERIAL JAPANESE GOVERNMENT

CENTRAL LIAISON OFFICE

TO : GENERAL HEADQUARTERS OF THE SUPREME COMMANDER
FOR THE ALLIED POWERS

FROM : Central Liaison Office, Tokyo

SUBJECT : Five-Year Industrial Plan of Manchoukuo
Government with Revisions thereof

C.L.O. No. 3746(GG)

30 July 1946

1. Reference: SCAP Memorandum AG 004(19 Jun 46) IPS
(SCAPIN-1506-A), subject: "Five-Year Industrial Plan."

2. In response to your direction in the above Memorandum herewith are submitted certified three copies in Japanese and three copies in English of the Five-Year Plan of the Manchoukuo Government, Parts I, II and III. In this connection your attention is invited to the fact that the original record of the Five-Year Plan of the Manchoukuo Government and its revisions were destroyed during an air-raid and that the copies herewith submitted are the only copies of said Plan which the Japanese Government now has. Only one part of the table of Part III has been attached to English versions of Part III.

FOR THE PRESIDENT:

/s/ S. IGUCHI

(S. Iguchi)
Director of General Affairs,
Central Liaison Office.

Enclosures: Certified copies of the
Five-Year Plan, Parts I,
II and III.

(Doc. 2542)

GENERAL HEADQUARTERS
SUPREME COMMANDER FOR THE ALLIED POWERS

AG 004 (19 Jun 46) IPS
(SCAPIN - 1506-A)

AFO 500
19 Jun 1946

MEMORANDUM FOR: IMPERIAL JAPANESE GOVERNMENT
THROUGH : Central Liaison Office, Tokyo
SUBJECT : Five-Year Industrial Plan

It is directed that the Imperial Japanese Government deliver certified copies in both Japanese and English of the Five-Year Industrial Plan which was announced by the Manchukuo Government during the latter part of 1936, effective in 1937. All subsequent revisions of the plan will likewise be submitted.

FOR THE SUPREME COMMANDER:

/s/ R. M. Hersey
for JOHN B. COOLEY
Colonel, AGD
Adjutant General

I, SUZUKI, Masakatu, Chief of the Continental Section of the Economic Department of the Control Bureau of the Foreign Ministry hereby certify the authenticity of the contents of the attached document, the Manchoukuo Five-Year Plan, Parts I, II and III, of which the Japanese Government has no official record because the original records were destroyed by bombing. The same has been certified as correct by persons formerly connected with the ex-Manchoukuo Government, who were familiar with and know the Plan, and that the attached copy is a true and correct copy of Parts I, II and III of said Plan.

/s/ M. Suzuki
Chief of the Continental
Section, Economic Department
of the Control Bureau,
Foreign Ministry.

Tokyo, Japan
July 31, Showa 21 (1946).

I, Suitsu, Risuke, formerly Extra-secretary of the Manchoukuo Government, do hereby certify that I have worked with and am familiar with the Five-Year Plan and its revisions, Parts I, II and III, and that the attached copy of said Five-Year Plan, Parts I, II and III, are true and correct copies of the original Plan, Parts I, II and III, now destroyed.

/s/ R. Suitsu

Tokyo, Japan
July 31, Showa 21 (1946)

Five Year Program of Manchoukuo

(Part 1)

Outline of Five Year Plan for Industrial
Development of Manchoukuo.

(January, 1937
Headquarters of the
Kwantung Army.)

by Suitsu, former Manchoukuo Government
Extra-Secretary.

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4. Table of allotment of capital required

I. Policy

The five-year program for industrial development has been prepared according to the fundamental principle underlying the measures for economic control over Japan and Manchoukuo, and emphasis has been laid on opening up resources in the latter's territory which may be required in time of emergency. At the same time it is desired to develop various types of industries in accordance with the scheme hereunder given, in order to make Manchoukuo self-supporting and supply the material shortage of Japan as far as possible, and also to establish firmly the foundation for industrial development of that country. All these efforts are naturally directed toward accelerating expansion of the national power and stabilization of the people's living in Manchoukuo.

1. With regard to Mining and other industries,
 - a. Munition industries for weapons of war airplanes, automobiles, and rolling-stock will be firmly established, and
 - b. Basic major industries such as those of iron, liquid fuel, coal, and electric power will be developed, and emphasis will be laid especially on the development of iron and liquid fuel industries, which materials are necessary for national defence.
 2. In respect to agriculture and stock-farming,
 - a. Resorting to all means available, every effort will be made to increase the production of agricultural products required as military stores, such as wheat, barley, oat, hemp, and cotton,
~~etc~~ etc
 - b. For the plan of increased production of rice, Japanese immigrants are required to play the main part, but the production will be adjusted with due regard to the demand and supply of rice in Japan.
 - c. Emphasis will be laid on the improvement and increased production of horses and sheep.
 3. With regard to transportation, railways and harbours will be provided with facilities necessary for the industrial development in addition to the transportation program required for national defence, which has already been prepared.
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II Scheme

1. Mining and other Industries

(1) Objects of development and Capital required

Kinds of Products	Object of Development	Present Capacity	Capacity to be increased by extension	Capital required for extension	Per unit working expenses
	(in 1,000 tons)	(in 1,000 tons)	(in 1,000 tons)	(in 1,000 yen)	
Pig iron and steel industries.	2,000 (Capacity of equipment) 1,650 (Desired amount of production)	580	1,420	71,000	50 yen
Pig iron	2,530	580	1,950	117,000	70
Ore	2,050	2,700	1,350	42,000	8
Iron and steel industries.				17,085	
Roller steel and others				248,485	
Total					
Liquid fuel			(20)		Under present program
Coal liquefaction			230	16,000	470 yen
Fushun	250		300	103,000	
Fushin	300		150	50,000	
Chientao	150	14	86	54,000	
Szepingtai	100	14	786	389,000	
Total	800	14	(160)	14,900	Under present program
Shale Oil			200	22,000	110 yen
Fushun	500	140	300	45,000	150
Sanshing	300		660	21,900	
Total	800	140	50 tons	13,800	Will purchase Daido Al-
Alcohol	56			1,670	cohol Co.
Total				434,700	
Coal	25,500	11,700	(10,300)	89,510	Under present program
Electric Power	(in 1,000 KW)	Coal power	(in 1,000 KW)	245,958	
Hydraulic electricity	1,405	946	946	excluding	
Coal power	590	459	Hydraulic	590 capital	281,88 yen
electricity	815		Coal power	356 shared by Korea	
Rolling-Stock					
Locomotive	1,414 (10)	(10)	(10)	20,813	The figures bracketed show the capacity of producing new rolling-stock required for industrial development under the five-year program
Passenger Car	14,520 (1,000)	(1,000)	(1,000)	7,000	
Locomotive	2,970 (20)	(20)	(20)		
Passenger Car	2,970 (20)	(20)	(20)		
Total				27,813	
Aluminium	20,000 tons	1,000 tons	6,000	Under present program	2,000
Magnesium	200	1,000	500	2,800	

Kinds of Products	Object of Development	Present Capacity	Capacity to be increased by extension	Capital required for extension	Per unit working expenses
	(in 1,000 tons)	(in 1,000 tons)	(in 1,000 tons)		
Pulp	120	70	50	15,000	300
Salt	875	275	(145) 455	3,750	
				7,500	
Gold Mining	Estimated amount of production in five years (in 1,000 yen)	Annual production about 10,000		50,000	
	200,000				
Soda ash	(in 1,000 tons)	(in 1,000 tons)			
	72	36	36	4,000	
Asbestos	5	36	36	500	
Lead	12.4		5	4,800	
Cattle meat	50	2.2	10.2	7,000	
Processing					
Automobile	4,000			20,000	
Weapons of War (including Tanks)	Quintuple as large as the present Capacity			100,000	
Airplane	340		340	300,000	
Total				1,391,071	

Note: With regard to automobiles, weapons of war and airplanes detailed study will be made separately.

II. Development Plans

1. Iron and Steel Industries.

With an annual output of 1,530,000 tons of pig iron and of 1,850,000 tons of steel as the goal, production will be expanded by promoting the development of the rich ore mines in Tungpian Province and other areas, as well as by operating the existing plants of the Showa Steel Company and the Honkeiko Shotetsu Company and others, taking into consideration of the supply-and-demand situation in Japan.

(1) The Showa and the Honkeiko Shotetsu Companies will manufacture both pig iron and steel, while the mills to be developed in Tungpian Province and other areas will produce only pig iron for the time being.

As regards the exploitation of the iron mines in the vicinity of Kaiyuen, the production of pig iron to be substituted for scrap iron will be undertaken after investigation and study.

(2) The governments of Japan and Manchukuo are to take the following steps necessary for the execution of the present plan.

a) To conduct immediately the investigation of the iron ore resources in Tungpian Province and other areas, and to take appropriate measures on the basis of actual conditions vis-a-vis the Showa Steel Company, such as revision of its production quota.

b) To increase the production of the Honkeiko-Penchiku coal mines owned by the Honkeiko Coal and Iron Company to roughly to 800,000 tons per year, which is to be distributed to the various iron mills throughout Manchukuo to be used by mixing with coke for iron manufacture.

Also, to take an appropriate measure with regard to the mining of the coke coal at Tienmuai and elsewhere.

c) To provide proper governmental assistance in order to ensure the realization of the Japan Iron and Steel Plan under which 630,000 tons of pig iron and 1,000,000 tons of steel (half of it, in manufactured articles) are to be supplied to Japan, and the surplus to be exported abroad.

In case the proposed expansion of iron and steel mills should necessitate curtailment of operation, appropriate measures are to be taken with regard to the ratio of operation curtailment between Japan and Manchukuo.

2. Liquid Fuel.

The annual production goal of liquid fuels will be 300,000 for shale oil with Fushun and Sanhsing as production centers, and 800,000 tons for liquified oils to be produced at Fushun, Kanto, and Gupinghai, and other places. For the time the various methods--direct liquifying, gas synthesis, low-temperature carbonization, will be promoted independently of one another, but a comprehensive overall operation plan will be worked out gradually.

(1) The plan for production increase for shale oil at Fushun will be carried out, and the output will be further expanded to 300,000 tons a year.

At Sanhsing the actual condition of the mine will be ascertained, and it will be rapidly developed so as to bring its annual output up to 300,000 tons after 5 years.

(2) As to liquified coal, the realization of the present production plan at Fushun will be followed with a further expansion to 250,000 tons a year. The production plans for 300,000 tons at Kanto will be speedily realized. Besides, the production capacity of the Supingkai Carbonization Company which uses Suan coal will be increased to 100,000 tons a year.

(3) Alcohol. Under a policy to use alcohol as a substitute fuel to be mixed properly with benzine, the production equipment will be expanded to ensure an annual output of 50,000 tons.

(4) The governments of Japan and Manchukuo will establish a liquid fuel policy in order to realize the above plans, and at the same time take the following steps:

a) The surplus over the demand of Manchukuo will be exported to Japan, in which case the governments will take appropriate measures regarding tariff and other matters.

b) When the Manchukuo government purchases the products, it will fix the prices be taking into consideration of the operation of the enterprises and other matters.

3. Coal.

The Manchuria Railway Co., and the Manchuria Coal Mining Co. will be ordered to carry out their production plans already fixed, and at the same time, with the Manchuria Coal Mining Co. as the principal, all coal mining companies will be made to formulate and carry out a further production expansion plan for 5,500,000 tons, so that the annual output throughout Manchuria will reach 25,500,000 tons a year.

4. Electric Power Industry.

With the view of meeting the demands of the general public for electric light and power and of special industries five years from now, a total power plant equipment for 1,405,000 kilowatt will be installed. In other words, in addition to the existing coal power generating equipment for 459,000 kilowatt, new equipment for 946,000 kilowatt will be installed. It is planned to rely upon hydraulic power for the new equipment, but pending the completion of the hydraulic power plants, additional coal-power stations will be constructed to serve the immediate needs and to be held as reserve equipment in the future. Accordingly, the equipment to be installed newly will consist of hydraulic power installations for 950,000 kilowatt and coal-power installations for 356,000 kilowatt.

5. Rolling Stock.

The current plan for repair capacity (including construction capacity) for 1,414 locomotives, 1,770 passenger cars, 12,750 freight cars, to be attained by the existing plants of the Manchuria Railway Co. and other concerns will be fully executed in order to be prepared for any emergency. Meanwhile, in order

to render possible a smooth exertion of the 5 year Industrial Development Plan, the necessary plants will be constructed, which possessing the construction capacity for 25 locomotives and 350 freight cars and the repair capacity corresponding thereto.

6. Aluminum.

With the Manchuria Light Metals Co. as the principal producer, the equipment for the production of 4,000 tons will be completed as planned, after which further expansions will be effected so to bring up the total annual output to 20,000 tons.

(1) With regard to the ^{16,000}~~14,000~~ tons under the production expansion plan, it may be perhaps advantageous from the stand-point of the question of the supplying of electric power, to confine the Fushu plant to the manufacture of alumina, and transport the same to other localities for the manufacture of aluminum.

(2) The Japanese government in connection with the execution of the above plan and the direct importation of the product to Japan is to take appropriate steps with regard to tariff or execution of the customs duty.

7. Magnesium.

The goal set for annual production of Magnesium is to be some 2,000 tons in the future. But for the present, only semi-industrial experiments will be conducted, and on the basis of their results an appropriate policy will be formulated.

The experimental enterprise, which is planned to have a capacity for producing some 200 tons, will be affiliated with the Manchuria Light Metals Co.

8. Pulp.

Following the investigation of the forest resources of North Manchuria, the pulp industry will be developed as swiftly as possible with the annual increase set at 50,000 tons.

In view of the pulp demands in Japan, appropriate measures will be taken to encourage pulp manufacture from non-wood materials such as kaoliang stalk, soy-bean stalk or reed.

9. Industrial Salt.

The existing Manchuria Salt Company will be made to realize as soon as possible its fixed plan for the production of 145,000 tons. Besides, a production increase of 455,000 tons covering the entire Manchukuo will be effected.

10. Gold.

The present gold production amounting to 10 million yen will be stepped up to 200 million yen for five years' total.

The government will for this purpose grant subsidies or take other appropriate measures.

11. Soda Ash.

The existing Manchuria Soda Company will be expanded to double its production to 72,000 tons a year.

12. Asbestos and Lead.

In view of the demand-and-supply situation in Japan and the military requirement with regard to asbestos and lead, the increase in the production of these items will be realized in Manchukuo. With the Manchuria Lead Mining Co. as the principal producer, the present production capacity for lead of 2,200 tons (20,000 tons in ore) will be expanded to 12,400 tons a year. Civilian mining of asbestos will be encouraged so as to bring its annual production to 5,000 tons.

13. Motor Vehicles.

Busses and trucks will be divided into two main categories of the large size (5 ton class) or the medium type for medium distance transportation and the ordinary type (3 ton class) for short hauls. The existing Dowa Automobile Co. will be fundamentally reorganized as an independent concern and it will be affiliated with 2 of the representative concerns in Japan engaged in the manufacture of medium and ordinary types of automobiles, and it will be built up gradually into a full fledged automotive concern in parallel with the development of machine industries in general throughout Manchukuo.

14. Ordnance (including tanks)

The existing equipment will be expanded with the view of maintaining and replenishing the amount of ordnance (including tanks), possessed by the army in Manchukuo, in times of emergency. The appropriation for the equipment is to be around 100,000,000 yen.

The major portion of the above cost will be borne by the Japanese Government. Special consideration will be given to such matters of the amount to be ordered in peace time.

15. Aircraft.

An independent company will be established, possessing, a capacity for constructing 28 planes a month and repairing 20 a month. The company will be expanded along with the development of the general industrial power.

Foreign techniques may be adopted by the company, if necessary.

16. Prepared Meat.

Keeping emergency needs in view, plants will be set up for processing meat with the production set at 50,000 tons a month, to be attained with the increased production of cattle and hogs.

2. Agriculture and Livestock Department

1. Production Goals, Costs, and Funds.

Items	Production Goal	Present Capacity	Increases	Costs	Funds
	(unit 1,000 tons)	(unit 1,000 tons)	(unit 1,000 tons)	Over 5 year period	
Agricultural	RICE 518	315	203	445	28,000
Crops.	Wheat 2,024	848	1,176	4,676	2,265
	Barly 262	192	70	600	
	Oats 89	36	53	916	434
	Lucerne 152	2	150	1,356	2,833
	Jute 40	0.7	393	462	
	Flax 23	3	20	330	
For Mili- tary Use	Caster-seeds 40	30	10	166	
	Cotton 45	15	30	3,943	16,512
	Yellow leaf-Tobacco 9.9	24	7.5	1,061	5,759
	Beats 300	64	236	160	
	Soy beans 4,720	4,100	620	491	36,424
	Kaliung 4,600	4,221	379		
	Millet 3,570	3,157	413	294	
	Maize 2,200	2,120	80		
	Basic Equip- ment for Development			33,024	20,000
	Total			47,924	155,427
<hr/>					
	(unit 1,000 head)	(unit 1,000 head)	(unit 1,000 head)		
Live-Stock	Horses 2,300	1,900	400	5,000	
	Sheep 4,200	3,010	1,190	12,720	7,500
	Cattle 2,744	1,979	765	2,951	
	Hogs 5,259	5,000	259	1,183	
	(unit 1000 tons)				
	Meat 192	141	51		
	Basic equip- ment for development			21,900	
	Total			43,754	7,500
<hr/>					
Grand Total				91,678	142,927

Note: The above table does not include the fund for the importation of horses.

II. Program of Development.

1. Rice

Aiming at an annual production of 518,000 metric tons, an increase in production of 203,000 metric tons is planned. Lowland rice will be chiefly planted by the Japanese immigrants, and the production by Korean immigrants as well as the output of highland rice by Manchurian farmers will be left to the natural increase. The funds required during 5 years will amount to some ¥ 28 million and about half million yen will be the costs.

For the above purpose the Government will take the following measures:

- a. Encouragement of increased production by Japanese immigrants.
- b. Increased supply and distribution of seeds of superior quality to Japanese immigrants.
- c. Introduction of system to control rice and other grains.
- d. Local procurement of rice for the Japanese troops in Manchuria.

2. Wheat

An annual output of 2,000,000 metric tons is aimed at and an increase in production of 1,180,000 metric tons is planned. Increased production will be chiefly carried out by Japanese immigrants, and, at the same time, conversion of native farming to wheat, restoration of deserted lands, and reclamation of new lands by Mongolian farmers will be encouraged in the northern Manchuria and in Hsingan Province. The funds required during 5 years will amount to some ¥ 25 million, and the costs will be about ¥ 4.7 million.

The Government will take the following measures in order to achieve the above mentioned objective:

- a. Increased supply and distribution of seeds of superior quality; loans to provide with funds required for reclamation; preventive measures against diseases.
- b. Introduction of systems to control import and export, and also to examine the products; rationalization of the customs tariff and railway freight.
- c. Improvement and control of flour mills.

3. Barley

With an annual production of 260,000 metric tons as its objective, the Government will endeavor to increase the output by 70,000 metric tons and will take proper measures to control import and export of this product. The increased production will be chiefly carried out by the Japanese immigrants in the northern Manchuria. The costs for the 5 years are estimated at some ¥ 600,000.

4. Oats.

An increase of 53,000 metric tons is planned to attain the objective of an annual production of 90,000 metric tons. Increase will be sought by means of restoration of deserted land of Manchurians and new cultivation in northern Manchuria and Hsingan Province and also reclamation of new lands by Mongolian farmers. The funds required for 5 years will be ¥ 900,000 and the costs are estimated at some ¥ 400,000.

5. Lucerne.

An increase in output of 150,000 metric tons is planned, aiming at an annual production of 152,000 metric tons. Conversion of farm products and restoration of deserted lands by native farmers throughout Manchuria as well as reclamation of new lands by Mongolian farmers will be resorted to, to realize the increased production. The funds required during 5 years will amount approximately to ¥ 2.8 million and the costs to ¥ 1.4 millions.

6. Jute. (?)

An annual production of 40,000 metric tons is aimed at, and an increase of 39,000 metric tons is planned, in order to attain self-sufficiency of gunny bags. Conversion of farming by native farmers will be carried out in southern Manchuria. The costs during 5 years will be about ¥ 460,000.

7. Flax.

An annual production of 230,000 metric tons is aimed at, and an increase of 200,000 metric tons is planned. The increase will be sought by means of conversion of farming by native farmers in northern Manchuria. The costs during 5 years are estimated at about ¥ 330,000.

8. Castor seed

An annual production of 40,000 metric tons being the objective, an increase in production of 10,000 metric tons is planned. Increase will be sought by means of conversion of farming by the Manchurian farmers throughout Manchuria. The costs required during 5 years are estimated at ¥ 170,000.

9. Cotton.

An annual production of 45,000 metric tons being aimed at, the capacity has to be increased by 30,000 metric tons. Increase will be sought by means of conversion of farming by the Manchurians in the southern Manchuria. The funds required during 5 years are estimated at ¥ 17 million and the costs at ¥ 4 million.

10. Yellow Leaf Tobacco

With the object to attain an annual production of 9,900 metric tons, an increase of 7,500 metric tons is planned, thereby prohibiting the importation of leaf tobacco. Increase in production will be sought mainly by means of conversion of farming by the Japanese settlers and the native farmers in southern Manchuria. The funds required during 5 years will be about ¥ 5.8 million and the costs about ¥ 1 million.

11. Beet.

To attain the aim of an annual production of 300,000 metric tons, an increase of 240,000 metric tons is planned. Increase in production will be sought by resorting to conversion of farming by the native farmers throughout Manchuria. The costs estimated for 5 years are about ¥ 160,000.

12. Soya-beans, Kaoliang, Millet, Maize.

a. Increase in the production of soya beans will be limited to such increase as will inevitably result from the increases of other products. More emphasis will be laid on the improvement of the species by means of which increase in output will be sought to enable export for the stabilization of the people's livelihood.

By resorting to such a measure, the annual out-put after 5 years is expected to amount to 4,720,000 metric tons, representing an increase of 620,000 metric tons. The funds required during 5 years are estimated at ¥ 3.64 million, and the costs ¥ 0.49 millions.

b. With the contemplated increase in the production of other special farm products, the planting areas of kaoliang, millet and maize are expected to decrease. In order to make up for this, amelioration of species will be aimed at to increase the yield per unit area. The annual output after 5 years will be 4.6 million metric tons kaoliang, 3.57 million metric tons millet, and 2.2 million metric tons maize, respectively, which will be slight increases over the present capacities. The costs for these three products during 5 years are estimated at ¥ 290,000.

13. Basic Facilities.

For the agricultural development as enumerated above, the basic facilities such as establishments to give agricultural guidance, associations for agricultural affairs, and the like will have to be either established or developed. The funds required for such purposes are estimated to amount to some ¥ 200 million and the costs to some ¥ 33 million.

14. Horse.

Aiming at 2.3 million head, including 46,000 head of improved breed, to be maintained after 5 years, an increase of 400,000 head is contemplated, in order to provide for emergency supply and also for agricultural use. The estimated costs after deducting the receipts will amount to ¥ 5 million. The expenses for preventive measures against epidemics will be included in those for basic facilities.

The Government will take the following measures in order to increase the stock.

- a. Establishment of stud horse breeding station, ground, and depot
- b. Preventive measures against horse epidemics and encouragement of cross-breeding
- c. Importation of foreign breed

15. Sheep

With the objective to maintain 4.2 million head at the end of 5 years, an increase of 1.19 million head is planned. The annual production of wool will be 4,740 metric tons and that of sheepskin will be 1.74 million pieces, an increase of 1,690 metric tons in wool and 280,000 pieces in sheepskin. The funds required during 5 years are estimated at ¥ 7.5 million and the costs ¥ 12.72 million.

The Government will take the following steps in order to attain the objective:

a. In order to improve upon the original Mongolian breed and to increase the stock, "Merino" and "Corridale" from Australia and the United States, original Mongolian breed from North China, and as many breeding rams from Japan as the circumstances permit will be imported.

b. Increase in sheep breeding ground

c. Increase in grazing grounds, and establishment of corporations to raise sheep, etc.

16. Cattle

With the objective to maintain 2.74 million head after 5 years, an increase of 0.77 million head is planned, in order to provide sufficient supply of meat and also that for agricultural use. The output of hides will amount to 410,000 pieces, an increase of 6,000 pieces. The costs required during 5 years are estimated at ¥ 2.95 million.

17. Pig

Improvement of breed will be emphasized. With the objective to maintain 5.26 head after 5 years an increase of 0.26 million head is planned. The costs required in 5 years are estimated at 1.18 million.

18. Meat

Aiming at an annual production 190,000 metric tons of beef, pork and mutton, an increase of 50,000 metric tons is planned.

19. Basic Facilities

For the development of live-stock farming as enumerated above, the basic facilities such as establishments to give guidance to live-stock raisers, to prevent live-stock epidemics, and the like, have to be perfected. The costs required for such purposes during 5 years are estimated at ¥ 21.9 million.

3. TRANSPORTATION AND COMMUNICATION.

I. Objective of Development and the Funds Required Therefor.

Classification	Remark	Funds Required (in ¥ 1,000)
Construction of Government Railways as planned	-	53,504

Classification	Remark	Funds Required (in Y 1,000)
Construction of Railways (4th Program)	The figure marked *includes the funds for the fiscal year 1942	165,373 (*181,068)
Improvement of the Existing Government Railways	-	203,000 (*240,000)
Construction of Other Railways	1,500 Kilometres	110,000
Cost of Purchase of Rolling Stock	-	60,000
Sub Total		621,877
Construction of Harbors at Roshin, Multao, etc.	-	36,800
Total		658,677
Construction of Highways (for automobile traffic)	13,200 Kilometres	62,000
Communications	-	50,000
Grand Total		770,677

(Note) The figure for the harbor construction as listed above is only preliminary, which is subject to modification according to the outcome of the practical survey on mining, manufacturing industry, agriculture and live-stock raising.

1. Railway

As regards railways, besides the lines to be constructed under the 4th program, about 1,500 kilometers shall be built as economic lines in 5 years.

The funds required for the above are estimated to amount to ¥ 140 million, to which the Manchurian Government as well as the South Manchurian Railways Co. will either make contributions or give guarantee, as the case may require.

2. Highways

The objective in 5 years is to build new highways covering 13,200 Kilometres. In addition to this, bridges will be built, and the existing highways will be improved. The costs required for the above will be approximately ¥ 62 million.

3. Harbors

Rashin, Hultao and, if necessary, Dairen will have their harbor facilities improved and developed, in such a way as to meet the possible increase in requirements of cargo movement, that may arise as the present development plan is put into practice.

4. Aviation.

Except for such lines as are particularly required to be inaugurated, the existing status of inland air lines will be maintained.

5. Communication.

In addition to those coming under the current program, such facilities as are required from the view-point of national defense and industrial development will be built. The business funds required for the works will amount to some ¥ 50 million.

(Note)

1. The present plan merely shows the general lines during the 5 years, which are subject to revision according to the change in the surrounding situation, and also the formulation of practical programs in the respective industries.

2. Aside from the present plan, it is necessary to maintain the various basic survey for the purpose of economic development in the future. With this end in view, various existing institutions of investigation in Manchuria will be integrated to direct their works according to definite guiding principles under priority system.

3. The Kwantung Province will also cooperate in the execution of the present plan.

IV. Recapitulation of Assignment
of Funds Required

Classification	Mining	Agriculture and Stock-raising	Communication and transportation	Immigration	Total
Funds Required:	1,391,071	42,927	770,677	274,000	2,578,675
To be invested by: Jap. Government or Special Corporations	8,000 • 94,000			11,500	91,500 • 94,000
Manchurian Government	436,894	30,000	68,250	10,500	545,644
S.M.R.	280,543	-	660,427	7,000	947,970
Private Invest- ment and Loans	244,742	112,927	12,000	7,000	376,669
Borrowings of Corporations	254,892	-	30,000	338,000	522,892
Total	1,391,071	142,927	770,677	247,000	2,578,675

(Note) In the amounts to be invested by the S.M.R. the capital stock payable by the Japanese Government amounting to ¥ 143,792,000 is included.

Plan for Capital required under Five Year Program for Industrial Development
(In ¥ 1,000)

Classification by industries	Enterprises	Capital required	Plan for capital	Plan for sharing capital				
				Japanese government private subsc- ription	Manchoukuo Government	S.M.R.	Others	Total
<u>Mining and other Industries</u>	Showa steel works	150,000	Shares for subscription 93,000	----	25,000	43,000	25,000	93,000
	Pig iron and steel industries		Debentures 55,000	----			55,000	55,000
			Barrowing 2,000 (5,000)	----			2,000	2,000
	Coal and Iron company	30,285	Shares for subscription 45,000	----	25,000	----	(5,000) 20,000	(5,000) 45,000
			Debentures 30,000	----			30,000	30,000
			Barrowing 285	----	----	----	285	285
Coal Liquefaction	Tungpingtao and other places	27,000	Shares for subscription 27,000	----	9,000	9,000	9,000	27,000
	Fushun	119,000	Shares for subscription 119,000 (8,000)	*33,000	43,000	43,000		119,000
	Fushun	116,000	Shares for 108,000 subscription (3,500)	*32,000	30,000	8,000	(8,000) 38,000	108,000
	Chientao	50,000	Shares for subscription 46,500	*15,000	14,000	----	(3,500) 17,500	(3,500) 46,500
	Szeping kai	54,000	Shares for 54,000 subscription	*14,000	20,000	----	20,000	54,000

Shale Oil	Fushun Sanshing	36,900 45,000	---	36,900 45,000	---	---	36,900 22,500	---	36,900 45,000
Alcohol	New company	1,670	Shares for subscription Barrowing	15,000 490	---	7,500 ---	---	7,500 470	15,000 470
Coal	Manchuria Coal Co.	141,210	Shares for subscription	84,000	---	42,000	42,000	---	84,000
			Debentures Barrowing	70,000 3,710	---	---	---	70,000 3,710	70,000 3,710
Electric Power	State-manages enterprise (Sungari)	36,820	---	36,820	---	36,820	---	---	36,820
	Do (Yalu River) S.M.R. (Fushun)	41,211 12,000	---	41,211 12,000	---	41,211 ---	---	---	41,211 12,000
	Manchuria Electric Indus- try Co.	155,927	Shares for subscription Debentures Barrowing	80,000 70,000 5,927	---	40,000 ---	---	40,000 70,000 5,927	80,000 70,000 5,927
Rolling-stock	S.M.R.	27,813	---	27,813	---	---	27,813	---	27,813
Aluminium	Light Metal Co.	38,000	Shares for subscription	37,000	---	14,800	20,720	1,480	37,000

			Barrowing	1,000				1,000	1,000
Magnesium	Experimenting plant	500		560			560		560
Pulp	New company	15,000	Shares for subscription	15,000		7,500		7,500	15,000
Salt	Manchuria Salt Industry Co.	8,750	Shares for subscription	8,750		2,186	1,750	4,812	8,750
	Private interests in General	25,000	Barrowing, etc	2,500		1,000		1,500	2,500
Gold mining	Gold Mining Co.	33,325	Shares for subscription	18,325		8,075	2,500	7,750	18,325
			Debentures	15,000				15,000	15,000
	New company	10,000	Shares for subscription	10,000		5,000		5,000	10,000
	Private interests	8,000		8,000				8,000	8,000
Soda ash	Manchuria Soda Co.	4,000	Shares for subscription	4,000			1,000	3,000	4,000
Lead	Lead Mining Co.	4,800	Shares for subscription	4,800			2,400	2,400	4,800
Asbestos	Private interests	500		500				500	500
Cattle meat processing	New company	7,000	Shares for subscription						
Automobile	New company	20,000	Shares for subscription	20,000		5,000	5,000	10,000	20,000
Weapons of war including tanks	Government enterprises	100,000		100,000	80,000	20,000			100,000
Airplane	New company	30,000	Shares for subscription	30,000		15,000		15,000	30,000
Total		1,391,071		1,391,071	90,000 *94,000	436,894	280,543	Shares for subscription 244,742 Debentures & Barrowing 254,892	1,391,271

<u>Agriculture and stock-farming</u>									
Agriculture		135,429		142,927	---	30,000	---	112,927	142,927
Stock-farming		(7,500							
Total		142,927		142,927	---	30,000	---	112,927	142,927
Transportation	S.M.R.	561,877	---	561,877	---	---	561,877	---	561,877
	(Rolling Stock purchase)	60,000	---	60,000	---	---	60,000	---	60,000
Harbour	S.M.R.	36,800	---	36,800	---	---	36,800	---	36,800
National Road	Government enterprise	62,000	---	62,000	---	62,000	---	---	62,000
Communications	Telegraph & Telephone Co.	50,000	Shares for subscription	20,000	---	8,250	1,750	12,000	20,000
			Debentures	30,000	---	---	---	30,000	30,000
Total		770,677		770,677	---	68,250	660,427	142,000	770,677
<u>Immigration</u>									
Immigrants	Manchuria Development Co.	274,000	Shares for subscription	35,000	10,500	10,500	7,000	7,000	35,000
			Debenture, Others	239,000	1,000	---	---	238,000	239,000
Total		274,000		274,000	11,500	10,500	7,000	245,000	274,000
Grand Total		2,578,675		2,578,675	91,500 *94,000	545,644	947,970	Shares for Subsept. 37,667 Debentures & borrowing 58,289	2,578,675

Classification by Industries	Enterprises	Capital required	Composition of Capital							Others	Total	
			At present	Authorized capital	Paid up Capital	Deben- ture	Total	End of fifth year Autho- rized Capital	End of fifth year Paid up Capital			Deben- ture
<u>Mining and other industries.</u>												
Pig iron & steel indust- ries.	Showa Steel Works	150,000..	..Shares for subs- cription	100,000	82,000	28,000	110,000	200,000	175,- 000	83,000	2,000	360,000
	Coal and Iron Co.	30,285..	..Shares for subs- cription Debentures Barrowing	10,000	10,000	—	10,000	60,000	60,- 000	30,000	285	90,285
Coal-liquefac- tion	Tungping- tao and others	27,000	Shares for subscription	--	--	--	--	30,000	27,- 000	--	--	27,000
	Fushun	119,000	Do	--	--	--	--	120,000	119,- 000	--	--	119,000
	Fushin	116,000	Do	--	--	--	--	120,000	116,- 000	--	--	116,000
	Chientao	50,000	Do	--	--	--	--	50,000	50,- 000	--	--	50,000
	Szepingmai	54,000	Do	5,000	2,500	--	2,500	60,000	56,- 500	--	--	56,500
	Shale Oil	Fushun	36,900	--	A part of business of S.H.R.							
	Sanshing	45,000	Shared for subscription	--	--	--	--	45,000	45,- 000	--	--	45,000
Alcohol	Few company	(1,670 13,800	Do Barrowing	--	--	--	--	15,000	15,- 000	--	470	15,470
Coal	Manchuria Coal Co.	141,210	Shares for subscriptions debentures	16,000	16,000	10,000	26,000	100,000	100,- 000	8,000	3,710	183,710

Electric power	State-managed (Sungari)	36,820	--	(Enterprise managed by Manchoukuo)						
	State-managed (Yalukiang)	41,211		(Do)						
	S.M.R. (Fushun) Manchuria Electric Industry Co.	12,000		(A part of business of S.M.R.)						
		155,027	Shares for subscription Debentures	90,000	90,000	25,000	115,000	200,000	170,000	95,000 5,927 270,927
Rolling stock	S.M.R.	27,813	--	(A part of business of S.M.R.)						
Aluminium Light Metal Co.		38,000	Shares for subscription Barrowing	25,000	6,250	--	6,250	50,000	143,250	-- 1,000 44,250
Magnesium	Experimenting plant	500	--	(Experimenting plant)						
Pulp	New company	15,000	Shares for subscription	--	--	--	--	15,000	15,000	-- -- 15,000
Salt	Manchuria Salt Industry Co.	8,750	Do	5,000	12,500	--	1,250	10,000	10,000	-- -- 40,500
	Private interests in general	25,000	Barrowing and others	(Private enterprises)						
Gold Mining	Gold mining Co.	33,325	Shares for subscription Debentures	12,000	7,175	--	7,175	30,000	2,500	15,000 -- 40,500

	Other New Company	10,000	Shares for Subscription	--	--	--	--	10,000	10,000	--	--	10,000
	Private interests	8,000	--	(Private concerns)								
Soda ash	Manchuria Soda Co.	4,000	Shares for subscription	8,000	4,000	--	4,000	8,000	8,000	--	--	8,000
Lead	Lead Mining Co.	4,800	Shares for subscription	4,000	4,000	--	4,000	10,000	8,800	--	--	8,800
Asbestos	Private interests	500	--	(Private enterprises)								
Cattle meat processing	New company	7,000	Shares for subscription	--	--	--	--	10,000	7,000	--	--	7,000
Automobile	New company	20,000	Do	--	--	--	--	20,000	20,000	--	--	20,000
Weapons of war including tanks	Government enterprise	100,000	--	(Joint undertakings of Japanese and Manchoukuo Governments)								
Airplane	New company	30,000	Shares for subscription	--	--	--	--	30,000	30,000	--	--	30,000
Total		1,391,071		275,000	223,175	63,000	286,175	1,193,000	1,111,050	303,000	13,390	1,427,442

Agriculture and stock-farming

135,427

(Manchoukuo Government enterprises and those financed by private concerns)

Agriculture stock-farming

7,500

Total 142,927

Transportation

Railway	S.M.R.	561,877	--	(A part of business of S.M.R.)								
	S.M.R.	60,000	--	(Do)								
	(rolling stock purchase)											
Harbour	S.M.R.	36,800	--	(Do)								
National road	Government enterprise	62,000	--	(Manchoukuo Government enterprise)								
Communications	Telegraph	50,000	Shares for	50,000	36,250	--	36,250	60,000	56,250	30,000	--	86,250
	+ Telephone Co.		subscription Debentures									
Total		770,677										

Immigration

Immigrants	Manchuria Development Co.	274,000	Shares for subscription Debentures Others	15,000	15,000	--	15,000	50,000	50,000	238,000	1,000	289,000
Total		274,000										
Grand total		2,578,675		274,425			337,425	1,303,000	137,000	571,000	14,392	1,802,692
										(508,000)	(14,391)	(1,465,267)
				340,000			63,000			(963,000)	(942,075)	

.....

(Amounts of capital and products are shown respectively
in ¥ 1,000 and 1,000 tons)

Classification by industries	Enterprise	Capital required		Percentage of Share holding						Remarks
				At present			At the end of fifth year			
				Manchoukuo Government	S.M.R.	Others	Manchoukuo Government	S.M.R.	Others	
Mining & other industries	Showa Steel Works	150,000	(Shares for subscription Debentures Barrowing	---	---	---	14	72	14	Extension will be made with the ob- ject of producing 1700 tons of pig iron, 150 tons of rolled steel and others
	Coal and Iron company	30,285	(Shares for subscription Debentures Barrowing	50	---	50	50	---	50	<u>Extension</u> Desired amount of production being 530 ton, pig iron, 500 ton steel ingot and 1,500 ton coal.
Coal liquefaction	Tangpintao & others	27,000	Shares for subscription	---	---	---	33	33	33	<u>New establishment</u> Desired amount of production: 300 tons of pig iron
	Fushun	119,000	Shares for subscription	---	---	---	36	36	(*38 ---	<u>Renovation and extension</u> Desired amount of production: 150 tons of gasoline and 100 tons of heavy oil
	Fushin	116,000	Shares for subscription	---	---	---	26	7	(*27 40	<u>New establishment</u> Desired amount of pro- duction: 240 tons gasoline and 45 tons of other materials

	Chientao	50,000	Shares for subscription	---	---	---	28	---	(^{*38} 42	<u>New establishment</u> Desired amount of production: 150 tons of gasoline and 15 tons of other materials
	Szepingkai	54,000	Shares for subscription	---	---	100	37	---	(^{*26} 37	<u>Renovation and extension</u> Desired amount of production: 90 tons of gasoline and 12 tons of other materials.
Shale oil	Fushun	36,900	---							<u>Extension</u> Desired amount of production: 74 tons of gasoline and 240 tons of heavy oil
	Sanshing	45,000	Shares for subscription	---	---	---	50	50	---	<u>New establishment</u> Desired amount of production: 98 tons of gasoline and 90 tons of heavy oil
Alcohol	New company	1,670 13,800	Shares for subscription	---	---	---	50	---	50	Daido Alcohol Co. will be purchased at the price of ¥ 1,670; its productive capacity being 560 tons.
Coal	Manchurian Coal Co.	141,210	Debentures	50	50	---	50	50	---	Coal and Iron Co. will invest ¥ 5,000, Fushin ¥ 8,000 and Chientao 3,500
Electric power	State-managed (Sungari)	36,820	---							
	State-managed (Yalukiang)	41,211	---							
	S.M.R. (Fushun)	12,000								
	Manchuria Electric Industry Co.	155,927	Debentures	20	50	30	35	25	40	

Rolling-stock	S.M.R.	27,813	---							
Aluminium	Light metal co.	38,000	Shares for subscription	40	56	4	40	56	4	
Magnesium	Experimenting plant	500	---							
Pulp	New company	15,000	Shares for subscription				50		50	New Establishment
Salt	S.M.R. Salt Industry Co.	8,750	Shares for subscription	25	20	55	25	20	55	
	Private interests in general	2,500	Barrowing & Others							
Gold mining	Gold mining co.	33,325	Shares for subscription	41.5	41.7	16.8	47	16.5	36.5	
	Private interests	8,000	---							
Soda ash	Manchuria soda co.	4,000	Shares for subscription	---	25	75	---	25	75	
Lead	Lead Mining Co.	4,800	Shares for subscription	---	50	50	---	50	50	
Asbestos	Private interests	500	---							
Meat processing	New company	7,000	Shares for subscription	---	---	---	33	34	33	
Automobile	New company	20,000	Shares for subscription	---	---	---	25	25	50	Newly established Daido co. will be purchased through investment by automobile manufacturers in Japan
Weapons of war including tanks	Government enterprise	100,000	---							
Airplane	New company	30,000	Shares for subscription	---	---	---	50	---	50	New company will be established with the capital to be subscribed by airplane manufacturers in Japan, and existing purchased.
Total		1,391,071								

Agriculture
and stock-farm-
ing

Agriculture	135,427	
Stock-farming	(7,500	
Total	142,927	

Transportation
and communications

Railway	S.M.R.	561,877	---
	S.M.R. (Rolling-stock purchase)	60,000	---
Harbour	S.M.R.	36,800	---

National road	Government enterprise	62,000	---
Communications	Telegraph & Telephone Co.	50,000	Shares for subscription
	Total	770,677	

Immigration
Immigrants

Manchuria Development Co.	274,000	Shares for subscription Debentures Others
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Total	274,000
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Grand total	2,578,675
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Renovation and
extension

Figures bracketed
show amounts increa-
sed as a result of
the enforcement of
the five-year pro-
gram

Manchuria Five-Year Plan.

Part II

Outline of Revised Plan for Mining
and Manufacturing Industry, under
Five-Year Industrial Development Plan.

May, 1938

Government of Manchuria.

General Principle.

Since 1937 the Five-Year Industrial Development Plan has been established and the planned development in the respective fields of industry has been in progress. In the light of the results of the first year and also of the development of international situation, it has been found necessary to re-examine the original plan and, in particular, to make upward revision in the objective of production of mining and manufacturing industry as shown in the enclosure. To the revised plan, new items have been added, still closer ties between Japan and Manchuria have been aimed at; and the supply of funds, technique, materials, etc. has been minutely studied. Thus it is hoped that the execution of the plan will be ensured.

1. Iron and Steel.

(1) Outline.

1. To meet the increased demand for iron and steel in Japan and to cope with the progress of construction work in Manchuria, the development of the resources will be expedited and the scale of respective corporations will be enlarged.

2. The objective of the equipment capacity in the fifth year has been revised as follows: (in 1,000 metric tons)

1. Pig iron (including 500,000 metric tons substitute bloom)	4.850
2. Steel ingots (including 160,000 metric tons cast and wrought steel ingots)	3.550
3. Ordinary rolled steel	1.700
4. Special steel and wrought and cast steel articles.	100
5. Iron ores required	
Higher grade	2,990
Lower grade	13,000

3. Proportion of various types of steel materials to be produced will be as follows, taking the possible necessity to supply the military demands in the case of emergency.

Small bars	17.7%	Medium sheets	8.1%
Wierods	7.0	Sheet iron	8.1
Medium bars)	10.8	Tin plates	4.3
Light rails		Steel tubes	5.4
Heavy bars	10.7	Band iron	3.2
Heavy rails	8.6	Cast and wrought steel articles	3.8
Heavy sheets	10.7	Special steel materials	1.6
Total		100.0	

4. The objective of supplying Japan with iron and steel materials to be achieved when the plan will be completed is set at the following figures. (in 1,000 metric tons)

1. Pig iron (including pig iron containing low percentage of phosphorus amounting to 240,000 metric tons) 1,500
2. Steel strips 1,125

In addition to the above, export of some 400,000 metric tons of steel materials to third countries including China is estimated.

5. Estimated funds required for the second year and onward (in 1,000 yen) 726,000

(2) Objective of Development and Funds Required.

<u>Classification</u>	<u>Original Plan</u> (in 1000 m. tons)	<u>Present</u> <u>capacity</u>	<u>Revised Plan</u> <u>Objective</u>	<u>Expansion</u> <u>planned</u>	<u>Funds required</u> <u>after 2nd year</u> (in ¥ 1,000)
Iron & steel					
Pig iron	2,550	850	(3,500) 4,000	(3,500) 3,150	320,000
Bloom	(200)	-	500	500	
Steel ingots	2,000	580	(3,550) 3,160	(2,970) 2,580	
Ordinary rolled steel	1,500	400	(1,700) 1,400	(1,300) 1,000	260,000
Special steel materials and cast and wrought steel articles	-	-	100	100	27,500
Iron Ores					
High grade	1,350	705	2,590	2,285	118,500
Low grade	6,140	1,768	13,000	11,232	
Total					726,000

(Note) Figures in the brackets show the objectives of the equipment capacities.

(3) Objective of Supply-Demand Relation (in 1000 m. tons)

<u>Classification</u>	<u>Objective of Production</u>	<u>Demand</u>	<u>Import and Export Total export</u>	<u>To Japan</u>
Iron & Steel				
Pig iron	4,500(including bloom)	3,000 (consisting of 250 for casting and 2,750 for steel-manu- facture)	1,500	1,500
Steel ingots	3,160	1,875	1,285	1,125 (Steel strips)
Ordinary rolled steel	1,400	1,000	400	0
Special steel materials, and cast and wrought steel articles	100	100	-	-

2. Coal.

(1) Outline.

1. To correspond with the progress of development of various enterprises such as steel-manufacture, liquefaction of coal, exploitation of electric resources, etc. and also to secure the supply to be sent to Japan, the development of the coal-mines will be expedited, in consideration of the quality and quantity of coal deposits at the respective mines, thereby taking the convenience of transportation and other facilities into full account.

2. The output of some 35 million metric tons is aimed at, advancing the objective in the fifth year as follows (in 1,000 metric tons).

Manchuria Coal Co.	(15,000)	18,050
S.M.R.	(10,660)	10,360
Penhsihu	(1,500)	2,700
Others		3,800

Note. *Total* 27,160 34,910
The figures in brackets shows those of the original plan.

3. The program of supply to Japan by fiscal year is as follows (in 1000 metric tons)

1938	4,100
1939	4,700
1940	5,500
1941	6,000

After 1942, as the liquefaction of coal will be gradually industrialized, the output of coal will have to be further increased, in order to maintain the supply to Japan.

4. Estimated funds required for the
second year and onward (in 1000 yen). 315,000

(2) Objective of Development and Funds Required.

<u>Classification</u>	<u>Original Plan</u> (in 1000 m. tons)	<u>Present</u> <u>capacity</u> (1937)	<u>Revised Plan</u> <u>Objective</u>	<u>Expansion</u> <u>planned</u>	<u>Funds required</u> <u>after 2nd year</u> (in ¥ 1,000)
Coal(Total)	27,160	14,648	34,910	20,472	315,000
Manchurian Coal Co.	15,000	2,740	18,050	15,310	230,000
S. M. R.	10,660	10,570	10,360	-	2,000
Penhsihu	1,500	768	2,700	1,932	29,000
Others	-	570	3,800	3,230	54,000

(3) Objective of Supply-Demand Relation (in 1000m. tons)

<u>Classification</u>	<u>1941</u>	<u>1938</u>
Objective of output	31,110 (3,800)	17,480 (700)
Manchuria Coal Co.	18,050	5,490
S. M. R.	10,360	10,690

Penhsiuh	2,700	1,300
Others	(3,800)	(700)
Demand	32,425	17,140
Steel-manufacture	8,100	2,280
Liquefaction	4,570	65
Railways	2,850	2,250
General use	8,062	6,795
Use at the mines	1,743	850
Use for ships' bunker	1,100	800
Export to Japan	6,000	4,100

3. Liquid Fuel

(1) Outline

1. In respect of both liquefied oil and shale oil the original plan has been partly revised in the light of subsequent survey and study. Efforts will be made to exploit new resources, and in consideration of the quality and quantity of the ores, proper method of treatment will be devised, to expedite the industrialization.

2. Of the original plan in regard to liquefaction of coal, the production at Fushun and Szepingkai (Hsian) will be expedited on an enlarged scale, while Chientao will be substituted for Kirin (Shulan) and Ilan. Thus an annual output of 1.7 million metric tons (1,61 million Kilolitres gasoline and 0.25 million metric tons heavy oil) will be aimed at.

At Anshan, synthetic treatment of high furnace gas and cokes oven gas will be planned to produce 60,000 metric tons.

(1) Fushun (in 1000 m. tons.)	350
Direct method	50
Synthetic method	200
Tar hydrogenation method (?)	100
(2) Chinchou (Fuhsin coal)	700
Synthetic method	300
Low temperature carbonization	200
Direct method	200
(3) Szepingkai (Hsian coal)	160
Low temperature carbonization	60
Synthetic method	100

(4) Kirin (Shulan coal)	300
Direct method	150
Synthetic method	150
(5) Ilan	200

Synthetic and direct method

3. In reference to shale oil the original plan will be carried out at Fushun, while the plan in regard to Sansing will be abandoned, to be replaced by a new one at Lotzoukou (?), aiming at a total annual output of 650,000 metric tons (70,000 Kilolitres of gasoline and 500,000 m. tons heavy oil)

4. The objective of supplying Japan with gasoline and heavy oil to be achieved when the plan will be completed is set at the following figures.

gasoline	1,453,000 Kilolitres
Heavy oil	710,000 Metric tons.

5. Production of alcohol will be developed according to the original plan.

6. Estimated funds required for the
second year and onward (in 1000 yen) 1,056,000

(2) Objective of Development and Funds Required.

<u>Classification</u>	<u>Original plan</u> (in 1,000 m. tons)	<u>Present capacity</u>	<u>Revised objective</u>	<u>Funds required after 2nd year</u> (in ¥ 1,000)
Liquefaction of coal	800	-	1770	936,000
(Plants)				
Fushun	250	(10)	350	-
Chinchou	300	-	700	-
Szepingkai and Hsian	100	(10)	160	-
Chientao	150	-	0	-
Kirin	-	-	300	-
Ilan	-	-	200	-
Anshan	-	-	60	-
(Products)				
Gasoline in 1000 Kilolitres	615	-	1670	-
Heavy oil	100	-	250	-
Others	-	-	77	-

<u>Classification</u>	<u>Original Plan</u> (in 1,000 m. tons)	<u>Present capacity</u>	<u>Revised objective</u>	<u>Funds required after 2nd year</u> (in ¥ 1,000)
Shale Oil	800	-	650	105,000
(Plants)				
Fushun	500	145	500	55,000
Sansing	300	-	0	0
Lotzukou	-	-	150	50,000
(Products)				
Gasoline	176	24	70	-
in 1,000 Kilolitres				
Heavy oil	331	66	500	-
Total				1,041,000
Gasoline	791	-	1,740	-
in 1,000 Kilolitres				
Heavy oil	431	-	750	-
Alcohol	56,690	15,080	56,690	15,000
in metric tons.				

(3) Objective of Supply-Demand Relation.
(in 1,000 m. tons)

<u>Classification</u>	<u>Objective of Production</u>	<u>Demand</u>	<u>Import and Export</u>	
			<u>Excess of export</u>	<u>To Japan</u>
Gasoline	1,770	257	1,513	1,513
in 1,000 Kilolitres				
Heavy oil	762	52	710	710
in 1,000 metric kilotons.				
Others	130	130	0	0
Alcohol	56,690	54,000	8,090	-
in m. ton			(To be carried over to the next year)	

(Note)

- The following additions are made to the objectives of production assigned to the Manchuria Petroleum.

Gasoline (30) Heavy oil (12) Others (53)

- "Others" includes kerosene, light oil and machine oil.

IV. Aluminum and Magnesium

I. Principles

1. The production of aluminium should be increased to an annual output of 30,000 metric tons to meet the increase of demand in Japan and Manchuria by utilizing shale produced in Manchuria and North China according as the low-cost and abundant generation of electricity is developed.

2. The aluminium factory at Fushun (present output: 4,000 metric tons) should be expanded to enable an annual output of 10,000 metric tons, and new equipment for production should be installed at Antung to produce the remaining 20,000 metric tons (planned to produce 10,000 metric tons by utilizing hydro-electricity of the Yalu River.

3. The production of magnesium should be promoted to reach an annual output of about 3,000 metric tons by utilizing magnesite produced in the neighborhood of Tashihchiao.

Researches should be made at the same time into the utilization of brine.

4. Total of Estimated Funds required as from the Second Year:
87,000,000 Yen

II. Plan for Supply and Demand

Classification	Unit	Planned Output	Demand	Estimated Export & Import (1)	
				Export & Import	to Japan
Aluminium	Metric ton	30,000	18,375	11,625	11,625
Magnesium	"	3,000	3,000	0	0

V. Lead, Zinc and Copper

I. Principles

1. The output of metallic lead should be planned to reach about 29,000 metric tons to cope with the increase of demand. In addition to Yangchiachantze, which is now in operation, the development of Tsingchengtze, Tienpaoshan, etc. should be promoted.

(1) Yangchiachantze:	19,410	metric tons
(2) Tsingchengtze:	3,530	"
(3) Tienpaoshan:	3,610	"
(4) Others:	2,050	"
Total:	28,600	"

2. In order to attain self-sufficiency of zinc in future, the output of metallic zinc should be planned to reach about 50,000 metric tons. In addition to Yangchiachangtze, the development of Tienpaoshan, etc. should be promoted.

(1) Yangchiachangtze:	36,590	metric tons
(2) Tienpaoshan:	5,050	"
(3) Others:	8,020	"
Total:	49,660	"

3. In order to curtail the importation of copper as much as possible, its output should be planned to reach 3,000 metric tons annually, and Tienpaoshan and others should be developed.

(1) Tienpaoshan:	1,240	metric tons
(2) Shihztutze:	730	"
(3) Malukou:	300	"
(4) Panling:	360	"
(5) Others:	360	"
Total	2,990	"

4. The amount of supply of lead to Japan to be attained in the fifth year shall be about 20,000 metric tons.

5. Total of Estimated Funds required as from the Second Year:
29,300,000 Yen

II. Objectives of Development and Funds Required

Classification	Unit	Output in Original Plan	Present Capacity (Figures for '37)	Revised Plan		Funds required as from 2nd Year (in 1,000 Yen)
				Planned Output	Planned Expansion	
Lead	Metric ton	12,400	1,220	29,000	27,780	23,000
Zinc	"	6,600	1,643	50,000	48,375	
Copper	"	0	0	3,000	3,000	6,300
Total						29,300

Note: The present capacity indicates the amount of refined ore calculated in terms of metal.

III. Planned Supply and Demand

Classification	Unit	Planned Output	Demand	Estimated Export & Import	
				Export & Import (1)	To Japan
Lead	Metric ton	39,000	7,000	22,000	22,000
Zinc	"	50,000	4,200	(1) 4,200	50,000
Copper	"	3,000 (5,800)	22,000	(1) 13,200	--

Note: (1) Zinc is supplied to Japan in refined ore until smelting equipment is installed.

(2) Figures in parentheses under Planned Output of copper indicate the amount of reproduction through the treatment of used copper at the metal smelting plant.

VI. Salt and Soda-ash

I. Principles

1. In order to cope with the increase of demand for industrial salt in Japan and Manchuria, the output of salt in the fifth year should reach about 910,000 metric tons and the improvement of the existing salt-fields and the construction of new salt-fields by the Manchuria Salt Industry Company should be promoted.

The output of salt to be attained when the new salt-fields shall have been matured (in 9 years) will be 1,400,000 metric tons.

(1) Existing salt-fields:

588,000 metric tons

(In addition to existing 14,100 chobu, an increase of 1,400 chobu will be made by works of improvement).

(2) Salt-fields of the Manchuria Salt Industry Co.:

321,000 metric tons

814,000 " (in 9 years)

(In addition to the plan now in progress to development 3,550 chobu, 15,000 chobu will be newly developed during the period of the plan).

Total: 910,000 metric tons

1,400,000 " (in 9 years)

2. The annual output of soda-ash should be increased to 72,000 metric tons according to the original plan.

3. The amount of supply to Japan to be attained in the fifth year shall be as follows:

Salt: 450,000 metric tons

Soda-ash: 25,000 "

As from the ninth year, 700,000 to 1,000,000 metric tons of salt can be supplied to Japan.

4. Total of Estimated Funds Required as from the Second Year:
23,500,000 Yen

II. Objectives of Development and Funds Required

Classification	Unit	Output in Original Plan	Present Capacity (Figures for '37)	Revised Plan		Funds required as from 2nd Year (in 1,000 Yen)
				Planned Output	Planned Expansion	
Salt	Metric ton	973,588	333,684	910,520 After salt-fields are matured 1,402,000	376,836	22,000
Soda-ash	"	72,000	12,000	72,000	60,000	1,300
Total						23,500

III. Planned Supply and Demand

Classification		Unit	Planned Output	Demand	Estimated Export & Import Export & Import to Japan (1)	
Salt	Industrial	Metric ton	910,320	136,000	430,000	430,000
	Table	"		292,750		
Soda-ash		"	72,000	47,160	24,840	24,840

VII. Chemical Fertilizer

I. Principles

1. In response to the increase of demand for fertilizers in Japan, Manchuria and China and in consideration of the possibility of an emergency, the chemical fertilizer manufacturing industry should be consolidated.

2. The annual production should reach about 450,000 metric tons of nitrogenous fertilizer.

(1) Manchuria Chemical;	240,000 metric tons
(2) By-product of steel industry;	62,000 "
(3) By-product of shale oil;	145,000 "
(4) Accessory installations of gas works;	617,000 "
Total;	453,000 "

3. Total of Estimated Funds Required as from the Second Year:

Note: The manufacture of chemical fertilizer by the fixation of nitrogen shall be studied separately, taking into consideration the trend of supply and demand within the country and abroad and conditions of domestic production in future.

II. Objectives of Development and Funds Required

Classification	Unit	Output in Original Plan	Present Capacity (Figures for '37)	Planned Output	Planned Expansion	Funds required from 2nd Year (in yen)
Chemical fertilizer	Metric ton	--	202,930	453,990	251,060	--
Manchuria Chemical	"	--	153,000	240,000	87,000	--
By-product of Steel works	"	--	13,460	62,250	48,790	--
Shale oil	"	--	30,000	145,000	115,000	--
Accessory installations of gas works	"	--	6,470	6,740	270	--

III. Planned Supply and Demand

Classification	Unit	Planned Output	Demand	Estimated Export & Import	
				Export & Import (1)	to Japan
Chemical fertilizer	1000 metric tons	453	200	250	150

VIII. Pulp

I. Principles

In response to the rapid increase of demand for pulp in Japan, the speedy exploitation of wood pulp of the Greater and Lesser Hsingan Mountains and also the increase of production of reed pulp and bean-stalk pulp should be realized.

Researches should be made at the same time into the exploitation of resources of pulp, such as latifoliate trees, the willow, kaoliang stalk, etc.

1. The output to be attained after the complete execution of the plan shall be 150,000 metric tons annually for rayon and 250,000 metric tons annually for paper, totalling about 400,000 metric tons annually.

(1)	Wood pulp:	300,000 metric tons
	Four Companies in Eastern Manchuria:	60,000 "
	Yalu River Paper Manufacturing Co.:	10,000 "
	Greater and Lesser Hsingan Mountains:	230,000 "
(2)	Reed pulp:	70,000 "
(3)	Bean-stalk pulp:	30,000 "
	Total:	400,000 "

The amount of supply to Japan to be attained after the complete execution of the plan shall be about 300,000 metric tons, including the supply of finished newsprint.

2. Total of Estimated Funds Required as from the Second Year:

194,000,000 Yen

Note: Considerable portion of the equipment for pulp manufacture to be newly installed shall be for ground pulp to manufacture newsprint.

II. Objectives of Development and Funds Required

Classification	Unit	Output in Original Plan	Present Capacity	Revised Plan		Funds required as from 2nd Year (in 1,000 yen)
				Planned Output	Planned Expansion	
Pulp	1,000 Metric tons	120	70	400	330	194,000
Wood pulp	"	120	70	300	230	144,000
Reed pulp	"	--	--	70	70	35,000
Bean-stalk pulp	"	--	--	30	30	15,000

Type of Industry	Unit	Expected amount of production under original program (total amount of pro- duction for five years)	Present Capacity (Actual production in 1937)	Expected amount of production under revised program (in five years)	Capital required in and after 2nd year (in ¥ 1,000)
	<u>¥ 1,000</u>				
Gold	Do	212,000	12,108	304,012	120,000
Alluvial gold	Do	-	-	201,190	62,000
Heiho	Do	-	-	85,890	-
Chiamusu	Do	-	-	94,930	-
Hunchun	Do	-	-	20,468	-
Mineralized gold	Do	-	-	102,822	58,000
Gold ore smelting works	Do	-	-	72,862	-
Yenho	Do	-	-	9,777	-
Manchuria Mining Co.	Do	-	-	5,840	-
Jehol	Do	-	-	2,975	-
Kaishantung	Do	-	-	3,347	-
Others	Do	-	-	8,021	-

X. Machine tools.

XI. Automoviles.

XII. Airplanes.

1. Program.

(1) With regard to machine tools, efforts will be made to extend the producing capacity in order to bring me annual production to the 5,000 mark.

Lathes	3,200
Planes	100
Drilling machines	300
Shaping machines	100
Sharpening machines	900
Grinding machines and others	400
Total	5,000

Note. When the value of the above machines are shown, calculation will be made according to the schedule prices same as those adopted in Japan.

(2) In respect to automobiles, the existing equipment of the Dowa Automobile Manufacturing Company will be adjusted in the first place, and further efforts will be made to establish firmly automobile producing industry so as to make the annual production reach the 50,000 mark. Under the present circumstances, however, completion of the equipment capable of producing about 30,000 automobiles will be aimed at, and efforts will be made to accelerate commercialization of this undertaking.

(3) With regard to airplanes, dispersion and extension of the Manchuria Aircraft Manufacturing Works will be attempted and efforts will be made to place this industry on solid foundations with the view to making the annual production reaching approximately the 5,000 mark.

(4) In order to build on an adequate basis enterprises for manufacturing automobiles and airplanes, measures for inviting investments and technical assistance by third nations will be considered.

(5) Rough estimate of capital required in and after the 2nd year is:
¥ 595,000,000

2. Expected extent of Development and Capital required.

Kinds of Products	Unit	Expected production	Present capacity	Revised Program		Capital required in and after 2nd year (in ¥1,000)
				Production expected	Extension required	
Machine tools	number	-	-	5,000	5,000	15,000
Automobiles	Do	4,000	-	50,000	Production aimed at under the original plan: 30,000	Production aimed at under the original plan: 180,000
Airplanes	Do	-	5,000	5,000	500,000	500,000
Total						695,000

XIII. Electric Power

1. Program.

(1) In order to spread the use of electric lights and also to encourage the floating of various types of industries, the equipment for electric transmission and transformation will be extended.

(2) The equipment for generation will be so projected as to generate 2,570,000 KW in the fifth year, and the generation will be made as follows:

Coal power electricity (814,000 KW)	1,330,000 KW
Hydraulic electricity (590,000 KW)	1,240,000 KW

Note. Figures in brackets are electricity estimated to be generated under the original program.

(3) As regards the generation of hydraulic electricity, utilization of the Yalu River and its tributaries will be considered in addition to efforts to be made for acceleration and extension of the work already undertaken on the Sungari River No.2, Yalu River and Chinghu Lake. The plan in this respect will be as follows:

	(in 1,000 KW)
Sungari River No.2	600
Yalu River (Shufeng)	360
Mutankiang (Shinghu Lake)	80
Yalu River and its tributaries	200
Total	1,240

(4) Equipment for transmission will be extended over 4,412 KM while the capacity of the equipment for transformation will be made capable of dealing with 2,479 KVA.

(5) The rough estimate of capital required is: ¥ 495,000,000

2. Expected development of undertakings and the capital required.

Item	Unit	Expected production under original program	Present capacity	Revised Program		Capital required in and after 2nd year (in ¥1,000)
				Production expected	Extension required	
Generation	KW	1,404,600	554,100	2,570,550	2,016,450	335,000
Hydraulic electricity	Do	590,000	-	1,240,000	1,240,000	225,000
Coal power electricity	Do	814,600	554,100	1,330,550	776,450	110,000
Distance covered by <i>transformation</i> transmission equipment	KM	4,815	250	4,413	4,163	78,000
Capacity of transmission equipment	1,000 KVA	1,965	71	2,479	2,406	82,000
Total	¥1,000					495,000

3. Estimated Demand and Supply.

Item	Unit	Expected production	Quantity Required (Maximum requirement)	
			Fifth year(1941)	Sixth year(1942)
Electric Power	1,000 KW	2,570	1,163	1,639
<u>Area</u>	Do	-	1,163	1,639
South Manchuria	Do	-	823	1,109
North Manchuria	Do	-	152	331
East Manchuria & others	Do	-	188	299
<u>Purposes for which electricity is required</u>	Do	-	1,163	1,639

Item	Unit	Expected production	Quantity Required (Maximum requirement)	
			Fifth year(1941)	Sixth year(1942)
Lighting	Do	-	318	354
Iron and Steel industries	Do	-	397	466
Light-metal and non-iron metal industries	Do	-	187	261
Liquid fuel	Do	-	157	305
Chemical industry	Do	-	104	253

XIV. Weapons of War and Rolling-Stock.

1. Program.

Further detailed study will separately be made in respect to weapons of war and rolling-stock.

2. Expected development of undertakings and capital required.

Item	Unit	Production expected under ori- ginal pro- gram.	Present Capacity	Revised Program		Capital required in and after 2nd year (in ¥ 1,000)
				Production expected	Extension required	
Weapons of war		present ca- pacity will be quintupled approximately	-	-	-	100,000
Rolling- stock	Number	-	-	-	-	28,000
Locomo- tives	Do	1,664 (85)	-	-	-	-
Passenger and freight-cars	Do	18,490 (2,150)	-	-	-	-

Note. Figures in brackets under Rolling-Stock show the capacity of manufacturing new locomotives and other vehicles.

XV. Asbestos and Cattle Meat Processing.

1. Program.

The enterprises concerning asbestos and cattle meat processing will be pushed generally as arranged under the original program.

2. Expected development of enterprises and the capital required.

Item	Unit	Production expected under original program.	present capacity	Revised Program		Capital required in and after 2nd year (in ¥ 1,000)
				Production expected	Extension required	
Asbestos	ton	5,000	100	5,000	4,900	2,500
Cattle meat processing	1,000 tons	50	-	-	-	9,000

Appendix

Table showing enterprises under the five-year program.

Item	Unit	Expected Production			Capital required in and after 2nd year	Remarks
		Original Program	Present Capacity	Revised program		
<u>Iron and steel</u>					726,000	
Pig iron	1,000 tons	2,550	850	(4,350) 4,000	320,000	
Bloom	Do	(200)	-	500		
steel ingot	Do	2,000	580	(3,550) 3,160	260,000	
Rolled steel	Do	1,500	400	(1,700) 1,400		
Special steel	Do	-	-	100	27,500	
Iron ores	Do	Rich ores 1,590 Poor ores 6,150	709 1,768	2,990 13,000	118,500	

Item	Unit	Expected Production			Capital re- quired in and after 2nd year	Remarks
		Original Program	Present Capacity	Revised Program		
<u>Coal</u>						
Manchuria Coal Co.	Do	15,000	2,740	18,050	230,000	
S.M.R.	Do	10,660	10,570	10,360	2,000	
Penchihiu	Do	1,500	786	2,700	29,000	
Others	Do	-	(570)	(3,800)	54,000	
<u>Liquid fuel</u>						
Coal liquefac- tion	1,000 tons	800	-	1,770	936,000	
<u>Factories</u>						
Fushun	Do	250	(10)	350	-	
Chinchow	Do	300	-	700	-	
Szepinghai	Do	100	(10)	160	-	
Chientao	Do	-	-	-	-	
Chilin	Do	-	-	300	-	
Ilan	1,000 tons	-	-	200	-	
Anshan	Do	-	-	60	-	
<u>Manufactured goods</u>						
Benzine	1,000 tons	615	-	1,670	-	
Heavy oil	Do	100	-	250	-	
Others	Do	-	-	77	-	
<u>Shale oil</u>	Do	800	-	650	105,000	
<u>(Factories)</u>						
Fushun	1000 metric ton	500	145	500	55,000	
Sanshing	"	300	-	-	-	
Lotzoukou	"	-	-	150	50,000	
<u>(Products)</u>						
Volatile oil	1,000 kilo- litres	176	24	70		
Heavy oil	1,000 metric tons	331	66	500		
Total					1,041,000	

Item	Unit	Expected Production			Capital re- quired in and after 2nd year	Remarks
		Original Program	Present Capacity	Revised Program		
Volatile oil	1,000 kilo- litres	791	-	1,740		
Heavy oil	1,000 metric tons	431	750			
Alcohol	Metric tons	56,690	15,080	56,690	15,000	
Aluminum	Do	20,000	(4,000)	20,000	78,000	
Magnesium	Do	500	-	3,000	9,000	
Lead	Do	12,400	1,220	29,000	4,450	
Shale oil	Do	800	-	650	105,000	
Zink	ton	6,600	1,643	50,000	18,550	
Copper	Do	-	-	3,000	6,300	
Salt	Do	973,588	333,684	910,520 After salt fields have become ripe for production: 1,401,000	22,000	
Soda ash	Do	72,000	12,000	72,000	1,500	
Chemical fertilizer	1,000 tons	-	202	453		
<u>Pulp</u>	Do	120	70	400	194,000	
Wood pulp	Do	120	70	300	144,000	
Pulp in general	Do	-	-	70	35,000	
Bean stalk pulp	Do	-	-	30	15,000	
Gold	¥ 1,000	(total) 212,000	12,108	304,012	120,000	
Machine tools	Number	-	-	5,000	15,000	
Automobiles	Do	4,000	-	30,000	180,000	
Airplanes	Do	340	-	5,000	500,000	

Item	Unit	Expected Production			Capital re- quired in and after 2nd year	Remarks
		Original Program	Present Capacity	Revised Program		
<u>Electric Power</u>						
Transmission equipment	KW	1,404,600	554,100	2,570,550	347,000	
Hydraulic electricity	Do	590,000	-	1,240,000	225,000	
Coal power electricity	Do	814,600	554,100	1,380,550	122,000	
Distance co- vered by transmission equipment	KW	4,810	250	5,413	78,000	
Scale of trans- formation equipment	1,000 KVA	1,965	71	2,479	70,000	
Asbestos	ton	5,000	100	5,000	2,500	Same as the amount estimat- ed under the original pro- gram.
Cattle meat processing	1,000 tons	50	-	-	9,000	Do
<u>Rolling stock</u>					28,000	Do
Locomotives	number	1,664 (85)	-	-	-	
Passenger and freight cars	Do	18,490 (2,150)	-	-	-	
<u>Weapons of war</u>		Present capacity will be quintupled	-	-	100,000	
Total					3,880,300	

Gist of the Revised Plan for Financing.
The Five Year Industrial Development of Manchuria.

Government of Manchoukuo

May 1938

I. Funds Required (as from the Second Year)

----- see Table No. 1

	Mining & Manufacturing Industries--Note (1)	Whole Plan -- Note (2)
Original Plan	¥ 1,500,000,000	¥ 2,582,500,000
Revised Plan	¥ 3,880,300,000	¥ 4,962,800,000
Increase	¥ 2,380,300,000	¥ 2,380,300,000

Note: (1) From the fund required for mining and manufacturing industries through five years according to the original plan, totalling ¥1,638,500,000, the actual cost in the first year, amounting to ¥138,500,000 is deducted; hence the fund required as from the second year amounts to ¥1,500,000,000.

(2) From the fund required for the whole plan through five years, totalling ¥2,905,500,000, the actual cost in the first year, amounting to ¥323,000,000, is deducted; hence second year amounts to ¥2,582,500,000.

II. Estimated Disbursements from the Required Funds according to Countries in which Payments are made.

	Mining & Manufactur- ing Industr- ies	Percent. to the total	Whole plan	Percent. to the total
Total Required Funds	¥3,880,300,000	100%	¥4,962,800,000	100%
Disbursements in the country	¥1,364,900,000	35%	¥2,141,400,000	43%
Disbursements In Japan	¥1,284,900,000	33%	¥1,468,900,000	30%
Disbursements in third Powers	¥1,230,500,000	32%	¥1,352,500,000	27%

As shown in the above table, out of the total required funds of about 4,960,000,000 yen, 43% is disbursed within the country, 30% in Japan and 27% in third Powers, which amounts to about 1,350,000,000 yen, an increase of about 850,000,000 yen over the estimated disbursements in third Powers according to the original plan, which amounted to about 500,000,000 yen.

As to disbursements for mining and manufacturing industries, one third of them is paid out within the country, in Japan and in third Powers respectively.

III. Plan for Raising Funds.

(a) Funds to be raised in the Japanese Yen

----see Table No.2

The funds in the Japanese Yen accruing to Manchuria from the exportation to Japan of materials produced according to the Five Year Plan are deducted from the total of the payments to be made directly or indirectly in Japan; the remainder should be the amount to be raised in Japan, namely:

Mining & Manufacturing industries;	approximately	¥1,690,000,000
Others:	"	¥ 620,000,000
Total:	"	¥2,210,000,000

If, in order to raise funds in foreign currencies, the 60% now allotted to Manchoukuo in accordance with the existing Japan-Manchoukuo exchange Agreement is raised to 90%, whereby 400,000,000 Yen in foreign currencies can be raised by Manchoukuo, she will have to raise on her part the same amount of funds in the Japanese Yen.

(b) Funds to be raised in Foreign Currencies.

Disbursements to be made in third Powers out of the required funds amount, as shown above, to about 1,350,000,000 Yen, against which the funds that can be raised by Manchoukuo amounts to about 610,000,000 Yen, comprising the estimated foreign exchange fund obtainable in accordance with the Japan-Manchoukuo Exchange Agreement, an increase of foreign exchange fund due to the improvement of foreign trade in future and the new production of gold; hence there is a deficit of 740,000,000 Yen, which amount should be raised according to IV. Plan for Foreign Exchange,

(4):

Approximately ¥ 740,000,000

(c) Domestic Funds

The amount obtained by deducting the amounts of the above two items from the total required funds should be raised within the country, namely:

Approximately ¥1,910,000,000

IV. Plan for Foreign Exchange

(1) Payments

(a) Direct or Indirect Payments to Third Powers in connection with Mining and Manufacturing Industries 1,230,400,000 yen.

(b) Payments to Third Powers in connection with Transportation, Communication, Agriculture, and Cattle-breeding and Emigration:
120,000,000 Total: 1,350,000,000 yen

(2) Funds for Payments

(a) Amount that can be earmarked out of the 60% allotted by the Japan-Manchukuo Exchange Agreement: 140,000,000 yen

In the Plan for Foreign Exchange for the Year 1938, 35,000,000 out of the 60% allotted by the Exchange Agreement is earmarked as the fund for the importation of materials required for the Five Year Plan; hence that annual amount for four years has been working out as above.

(b) New Production of Gold: 300,000,000 yen

In the Revised Five Year Plan, it is estimated that gold will be produced to total 300,000,000 through four years as from the second year, and all of the production is planned to be exported.

(c) Through the Curtailment of Import: 50,000,000 yen

(d) Through the Increase of Export: 120,000,000 yen

Total 610,000,000 yen

(3) Deficit: 740,000,000 yen

(4) Measures to cope with the Deficit.

(a) Introduction of Foreign Capital in connection with Automobile and Aircraft Manufacturing Industries: 340,000,000 yen

(b) By increasing the allotment to Manchoukuo now set at 60% according to the present Japan-Manchoukuo Exchange-Agreement, to 90% :
400,000,000 yen Total: 740,000,000 yen

Table No. 1

List of Funds Required for the Industrial Development of Manchuria as from the Second Year.

	Funds Required		
	Original Plan (1,000 yen)	Increase (1,000 yen)	Revised Amount (1,000 yen)
(1) Mining Manufacturing Industries			
Iron & Steel	325,500	390,500	726,000
Liquid Fuel	389,000	667,000	1,056,000
Coal	146,500	168,500	315,000
Electricity	242,000	253,000	495,000
Light Metal	69,000	18,000	87,000
Pulp	21,000	173,000	194,000
Salt	22,000	---	22,000
Soda	1,500	---	1,300
Chemical Fertilizer	---	---	---
Cattle-meat processing	9,000	---	9,000
Gold Mining	80,000	40,000	120,000
Lead & Zinc	6,000	17,000	23,000
Copper	---	6,300	6,300
Asbestos	500	2,000	2,300
Machine Tools	---	15,000	15,000
Vehicles	28,000	---	28,000
	20,000	160,000	180,000
Arms	100,000	---	100,000
Aircraft	30,000	470,000	300,000
Total	1,300,000	2,380,000	3,880,300
(2) Transportation & Communication		644,000	--- 664,000
(3) Agriculture, Cattle-breeding & Emigration		438,300	--- 438,300
Total	2,582,500	2,380,300	4,962,800

Table No. 2 Plan for Raising Funds

	Total Funds Required	Domestic Funds (1000 yen)	Plan for Raising Funds in Japanese yen (1000 yen)	Funds in Fo- reign Curre- cy (1000 yen)
Mining & Manufacturing Industry	3,880,300	1,450,300	1,690,000	740,000
Transportation & Communication	644,300	426,500	620,000	---
Agriculture, Cattle-breeding & Emigration	438,500			
Total	4,962,800	1,912,800	2,310,000 Note (1)	740,000 Note (2)

Note: (1) Basis for the Amount of 2,310,000,000 in the Japanese yen:

- (i) Direct Payments to Japan out of the Required Funds:
1,468,900,000 yen
- (ii) Indirect influx into Japan of Payments made in Manchuria:
1,070,700,000 yen (half of disbursement in Manchuria)
- (iii) Funds in the Japanese Yen accruing from the increase of export to Japan of Goods produced by the Five year Plan:
812,000,000 yen
- (iv) Indirect Reflux of the above Funds into Japan:
406,000,000 yen (half of the acquiring funds)
- (v) Dividends and Interests Payable to Japan in connection with the Five Year Plan: 193,612,000 yen
(at the rate of 4% a year on the average)

Total: 2,307,212,000 yen

(2) The amount obtained by deducting 140,000,000 yen which comprises the sum for four years at the annual rate of 35,000,000 yen, which is the amount earmarked for the year 1938 out of the 60% allotted by the present Japan-Manchoukuo Exchange Agreement for the importation of materials and equipment required in connection with the Five Year Plan, the sum of 50,000,000 yen

accruing from the curtailment of importation, the sum of 120,000,000 yen accruing from the increase of exportation and the sum of 300,000,000 yen accruing from the new production of gold, from the amount payable direct to third Powers.

The table of the outline of the Five Year Industrial Development Plan of Manchuria and the following has been delayed for lack of time.

Manchuria Five Year Plan

Plan III

(See tables above)

Outline of the Policy for the Second and
the Following Years of the Five Year
Industrial Development Plan - May 1938
Manchoukuo Govt.

I.- Guiding Principle

In view of the actual results attained during the first year of the Five Year Industrial Development Plan, the shortcomings of the plan will be corrected; the whole plan will be re-examined to cope with the existing international situation as well as the actual condition of Japan and Manchukuo; substantial changes will be introduced in the ultimate and the annual objectives; taking Japan and Manchukuo as one organic whole, close interconnection between each sphere of the plan will be maintained; and all the requirements for production will be satisfied so that the execution of the plan may be ensured.

II.- Measures

1. Objective of Production

(1) In order to meet the current international situation and also the demand for increased productive power of Japan and Manchukuo, taken as one whole, and that of North China, the objective of production will be raised thereby taking the natural resources of Manchukuo and other factors into consideration.

(2) As the study and investigation of the natural resources, supply and demand and other factors make progress after the plan was made, the allocation of the projected production for each year will be re-examined so as to make the plan well-balanced and practicable.

(3) Following the policy for the general development of various resources, important additions of the mining of zinc and coppers and the

manufacture of chemical fertilizers will be made to the items of the programme made

(4) In view of complexity of conditions and far-reaching effects, agricultural and stock raising industry will be treated separately from mining and manufacturing and other spheres of industries in which the increased production depends more upon human ingenuity, taking into consideration the actual state of farm economy and for the purpose of promoting the welfare of the farmers, the methods of agriculture and animal husbandry will be re-examined; and possible changes will be made so as to avoid placing undue emphasis upon such crops as may be in special demand only.

2. Enterprising Organizations.

In order to increase efficiency of the coordinated and well-balanced activities of the organizations engaged in production, the following will be taken into consideration:

(1) The results in the business operation of the Manchuria Heavy Industry Development Company will be utilized in the execution of the Five Year Plan; to insure this, the executive officers of the said Company will actively participate in the planning as well as in the execution, so that the Management of the Company will be properly operated.

(2) Allotment of the projected increase of production and of the equipment and facilities necessitated under the Five Year Plan will be made to each company, and the scopes of responsibility of each company on the one hand, and that of the government on the other, will be clarified based upon a concrete programme for the execution of the plan.

(3) In the execution of the plan, each company is to follow the government policy, and aiming at the independence of the enterprise to rationalize and solidify the business, to be fully prepared for the management on a business basis, and not to convert itself into a mere munition factory, misled by the prevailing state of affairs but to establish business on a permanent basis.

(4) Along with the guidance of the controlled industries, free enterprises in general will be properly directed and encouraged; small factories engaged in the works connected with heavy industry will be developed as a part of the organic whole and will be induced to take part in the execution of the whole plan, if necessary; and the activities of the light industry will be coordinated to make them contribute to the sound and well-balanced industrial development.

(5) To maintain close cooperation between companies engaged in various lines of production in the execution of the plan, regular joint

conferences of the delegates from certain companies will be convened and other necessary measures will be taken.

(6) Establishment of industrial centers throughout Manchukuo will be planned taking into consideration both natural and social conditions.

3. Labour and Technique

(1) Technical men.

Dependence upon Japan for the supply of technicians and skilled labour will be re-examined, and the institutions for the training of skilled labourers will be developed in Manchukuo, especially for the training of Manchurians, and a more concrete programme will be established for the procurement, training and distribution of skilled labourers for each kind of industry, for each year, by race, and with respect to sources.

(2) The entire industrial development plan will be re-examined not only from political considerations but from a technical point of view. The research work done by the Continental Scientific Board, the Geological Survey Institute and other laboratories, research institutes or technological organizations will be encouraged; and the technical knowledge and skill of the government as well as private technical experts will be systematically utilized.

4. Natural Resources, and Machinery and other appliances needed for Production

(1) In order to expedite the development of natural resources, systematic survey will be made, the mining administration will be simplified to increase efficiency; adjustment of organizations concerned will be carried out and in particular the function of the Manchuria Mining Development Company (or Manshu Kogyo Kaihatsu Kaisha) will be strengthened.

(2) Necessary steps will be taken in Japan and Manchukuo to give priority to the acquisition of the equipment, machinery and raw materials needed for the execution of the Five Year Plan and the placing of orders will be controlled, if necessary.

(3) Special arrangement will be made for the acquisition of machine tools and for their equitable distribution among different companies.

5. Funds

(1) In anticipation of the possible rise in prices, the probable speed of circulation of funds, the amount required will be re-examined so that the programme may be established on as concrete an outlook as possible.

(2) Taking into consideration the supplying capacity of machinery equipment and other appliances of Japan and Manchukuo, an appropriate programme for raising the funds will be formulated, according to where the funds are to be used.

(3) In view of the trade relations of Japan and Manchukuo, as constituting an organic whole, and the latest development of relations with North China, the programme as to the foreign exchange funds will be re-examined. Possibility of foreign exchange control, encouragement of exportation and the importation of foreign funds will be considered.

(4) Transfer of factories into Manchukuo as a form of the introduction of capital will be planned.

6. Supply and Demand, and the Transportation of Products.

(1) With a view to consolidating Japan and Manchukuo into one and also to including North China in connection with the distribution of the increasing products, the prospect of supply and demand will be carefully investigated, and the distribution of the products among Japan, Manchukuo and North China and the trade relations with third party countries will also be studied.

(2) Regular demand for the goods which Japan needs from Manchukuo (in quantity and price) will be secured; and new market in China and other regions will be sought.

(3) System of Distribution of the products goods and of the price control will be improved and completed.

(4) Policy in regard to land and water transportation tariff will be minutely examined in connection with the distribution of commodities and the trade.

7. Government Organization in charge of the Execution of the Plan

(1) Economic Planning Commission (tentatively called) will be organized to take charge of the readjustment and coordination of commercial and economic administration belonging to the various government organizations, to insure the collaboration between the government authorities and private firms and to deliberate on the plan and measures for the execution of the Five Year Plan.

(2) Organizations will be reformed or newly established to take charge of the systematic direction of and supervision over the activities of different companies to enable them to secure the projected production, such a manner as to maintain balance among different companies, in the progress of executing the plan.

(3) The Five Year Plan will be examined with respect to each region or district so that well-proportioned accomplishment and the cooperation between the central and local organizations may be insured.